U.S. District Court for the District of Kansas

Vornado Air Circulation Systems, Inc.
v.
Duracraft Corporation
No. 92-1543-WEB
Decided March 4, 1994

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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF KANSAS

VORNADO AIR CIRCULATION SYSTEMS, INC., a Kansas corporation,	)	
Plaintiff,	)	
v.	)	No. 92-1543-WEB
DURACRAFT CORPORATION, a Massachusetts corporation,	)	
Defendant.	)	

MEMORANDUM AND ORDER

This is a dispute between two manufacturers of electric fans. The dispute centers on a fan produced and sold by the defendant Duracraft since 1991. The Duracraft fan has a front grill structure with "reverse curving vanes," referred to by the parties as a "spiral" design. The plaintiff Vornado has produced and sold fans with a similar looking spiral grill since 1988. Vornado filed this action, contending that Duracraft's use of a spiral grill in its fan is a violation of Vornado's trademark and trade dress rights under the Lanham Act and under common law.

This matter initially came before the court upon Vornado's motion for a preliminary injunction. At a hearing on that motion, the parties waived the demand for a jury trial and agreed to proceed immediately with a trial to the court on all issues. Evidence was presented to the court from October 18, 1993, through October 22, 1993. The parties were given an extended time in which to submit proposed findings of fact and conclusions of law. Closing arguments were then presented to the court on January 24, 1994.

The plaintiff's complaint contains three counts. Count One alleges that the defendant has infringed upon the plaintiff's registered trademark. Vornado contends that it possesses a valid registered trademark, referred to by Vornado as a "distinctive (grill design) trademark." Vornado asserts that defendant Duracraft has infringed upon plaintiff's registered mark by advertising and selling the Duracraft Model DT-7 "Turbo Fan," which has a "spiral" grill shape identical to Vornado's trademark registration. Vornado further contends that defendant's use of this grill design in the DT-7 is likely to cause confusion or mistake as to the origin of source or manufacture of the fan. Count Two alleges unfair competition by trade dress simulation under section 43(a) of the Lanham Act. Vornado alleges that Duracraft's product packaging and its use of the spiral grill constitute a false description and representation that Duracraft's DT-7 fans are made by or are affiliated with Vornado. Again, Vornado contends that it will suffer damage from this unfair competition by reason of the likelihood that purchasers will be confused as to the true

source of the defendant's product. Vornado's final claim, found in Count Three of the complaint, alleges common law trademark infringement and unfair competition.

After hearing the evidence and the parties' arguments, and having reviewed all of the materials submitted to the court in connection with the case, the court now enters these Findings of Fact and Conclusions of Law pursuant to Rule 52(a) of the Federal Rules of Civil Procedure. To the extent any Findings of Fact are more properly construed as Conclusions of Law, they shall be so considered; and to the extent any Conclusion of Law are more properly construed as Findings of Fact, they shall be so construed.

Findings of Fact.

Parties. Plaintiff Vornado Air Circulation Systems, Inc. ("Vornado") is a Kansas corporation having its principal place of business in Wichita, Kansas. Vornado is engaged in the manufacture and wholesale distribution of electric fans.

Defendant Duracraft Corporation ("Duracraft") is a Massachusetts corporation having its principal place of business in Whitinsville, Massachusetts. Duracraft is also engaged in the manufacture and wholesale distribution of electric fans.

Development of Vornado. The history and development of the plaintiff Vornado was established by the testimony of Michael C. Coup, Vornado's president and

chairman of the board. Vornado fans were first manufactured in 1945 by the O.A. Sutton Corporation in Wichita, Kansas. That company ceased production in 1959. Throughout the 1970's, Coup and Don Moore, both of Wichita, collected and repaired old Vornado fans. In the early 1980's, Coup and Moore began to investigate the possibility of producing new Vornado fans. The two men contacted Richard Ten Eyck, who was part of the design team for the original Vornado fans, and had him prepare design drawings for a new Vornado fan. Tr. Vol. I at 43. By 1987, a prototype fan had been developed. The last component to be developed was the grill structure. Ten Eyck's company had produced drawings of numerous grill designs. Coup and Moore liked a spiral design Ten Eyck showed them, partially because the spiral was visually representative of the air movement the fan was supposed to create. Id. at 45-47. They also believed that a spiral design helped to identify the product because they considered the spiral's visual image to be suggestive of "Vornado" -- a name derived from "vortex" and "tornado." Id. Models of several different spiral designs were made and tested. One spiral grill with ribs tilted at an angle or "canted" was tested but it had the effect of dispersing the air over a wide area. Coup and Moore were seeking to build a fan that produced a tight column of air rather than one that dispersed the air over a wide area. Id. at 52. They eventually settled on a spiral grill with ribs parallel to the axis of the propeller, which produced more "columnation" than did the spiral grill with angled ribs. Id. This columnation was consistent with the "ducted" structure of the Vornado fan they were producing. A ducted fan typically has a tubular duct structure surrounding the propeller. The duct helps to

straighten the flow of air to and from the propeller into a "straight" beam of air that moves forward along the axis of the propellers. This is in contrast to other types of fans which are designed to disperse the air over a wide area. A "box fan" is an example of this latter type of fan.

Coup testified that he and Moore performed some tests to determine if their spiral grill helped to columnate the air better than did a conventional "straight radial" grill - that is, a grill with straight ribs running from the center to the outer edge of the grill. They believed that the spiral design might be more effective at helping to columnate the air beam. Id. at 54. Although they did not conduct any velocity studies, Coup testified that tests performed with feathers indicated that the two grill designs performed about the same. Id. at 54-56.

In early 1988, Coup attended a national housewares show in Chicago to familiarize himself with how such products were brought to market. Representatives of Vornado met with other companies to discuss possible sales of Vornado fans. Vornado's representatives at that time had business cards marked with a printed symbol of the Vornado spiral grill design. The first shipment of Vornado fans took place in November of 1988. All of the fans sold by Vornado at that time used the spiral grill design. Vornado has expanded its product line since 1988 and currently sells at least six different model fans.

All of the fans sold by Vornado from 1988 to the present have incorporated a spiral grill structure. Tr. Vol. I at 60; Pl. Exh. B. See Attachment 2 (attached to this

opinion). The Vornado spiral grill is exemplified by Plaintiff's Exhibit U-1. The grill is made of plastic. It is circular in shape when viewed "head on." Twenty-six identical ribs connect the center hub of the grill to the outer edge. Each rib is curved or "arcuate" shaped, with the ribs curving to the left from the center. The distance between each rib is greatest at the outer edge of the grill and decreases toward the center. The maximum distance between any rib is no more than 0.5". The center hub of the Vornado grill contains a large printed "V" with the name "VORNADO" running through it. The spiral design is likely to create in the average consumer a mental image of a spinning column of air. The grill may call to mind images of a tornado or hurricane; it is suggestive of a mass of air or fluid spinning around a center point -- i.e., a vortex.

Vornado fans are generally priced at the "high" end of the retail market. The suggested retail price on the smallest Vornado fan, the 180C Compact, was $59.00 during 1992-93. Def. Exh. 47. The suggested retail price of Vornado's other models was higher, ranging up to $119.00 for two long-stand models. Id. Vornado initially marketed its fans through specialty catalogs. The fans were also sold through hardware stores such as Ace and True Value, as well as department stores such as Macy's, Bloomingdale's, and Dillard's. The advantage of selling in these "upscale" outlets was that the benefits of the product could be explained to the customer by a salesperson. Tr. Vol. I at 61-62. Vornado's marketing strategy in the beginning was to aim almost exclusively at the high end of the fan market. More recently, the company has expanded its product line with a view toward being more competitive in the rest of the

market. Vornado intends to continue to develop products with the spiral grill for eventual distribution in discount and mass marketing outlets. Id. at 62-64.

From 1/1/88 to 6/30/93, Vornado spent $2,124,201 advertising its products. Pl. Exh. EE. In the period 1/1/88 to 8/31/90, Vornado spent $782,725 advertising its products. Id. Since January of 1988, Vornado has used a printed spiral symbol, derived from its spiral grill, in its advertisements and on all of its product packaging in order to identify its products and to distinguish them from others on the market. In addition, photographs of Vornado fans with the spiral grill prominently featured are present in most if not all of Vornado's advertising and packaging. Vornado's printed spiral symbol and its spiral grill design have been exposed to the public through advertisements in various newspapers throughout the United States having a total annual circulation of approximately 200 million. Pl. Exh. ZZ; Tr. at 765. These items have also been exposed to the public through magazines and mail-order catalogues having an annual circulation of approximately 190 million. Tr. at 765. Vornado has a reputation as being a manufacturer of high quality fans.

In the period 1/89 to 8/89, Vornado sold approximately 46,000 fans. In the sales season 9/89 to 8/90, the number of units sold was approximately 89,000. In the following three years, unit sales were approximately 85,000, 134,000, and 146,000, respectively. Pl. Exh. HH.

On January 9, 1989, plaintiff's assignors applied to the United States Patent and Trademark Office for a utility

patent on the axial flow fan depicted in U.S. Patent No. 4,927,324 (the "'324 Patent"). Def. Exh. 9. Various representations were made in the '324 Patent, including the following:

> It is therefore the principal object of the present invention to provide a new and improved front grill and duct structure which increases the fan's capacity and efficiency while decreasing its sound over the prior art or no grills at all.
>
> * * *
>
> The longer length curved ribs [], as compared with a convention [sic] straight rib, provides a less rigid grill structure which can be desirable under certain circumstances such as impact shocks.
>
> In viewing FIG. 5 [a drawing depicting a portion of the Vornado spiral grill], the fan blades not shown move in a clockwise direction from left to right, while the grill ribs [] curve to the left from the center in the opposite direction which provides an optimum flow of air at a standard power usage.

Def. Exh. 9. The '324 Patent was issued to Vornado on May 22, 1990. The shape of the Vornado fan is also the subject of a design patent, U.S. Des. Pat. No. 312,124. Vornado has not alleged that Duracraft infringed either of

these patents and neither party has asked the court to determine the validity of any patent relating to the products involved in this case.

Vornado fans are promoted as "air circulators" that create a penetrating beam of air. In various advertisements and on its product packaging, Vornado has touted the general superiority of what it has called its "Patented AirTensity Grill," although Vornado now denies that grill itself is patented. Vornado's advertisements suggest that the Vornado spiral grill is a superior design that performs better than other grills. The defendant has amply documented the numerous representations made by Vornado to that effect. See e.g., Def. Exh. 12, 13, 15, 18, 24, 26, 27, 27A. Despite these prior representations, Vornado now takes the position that the spiral grill design performs no better -- and indeed performs slightly worse -- than certain conventional grills.

Although the specific products at issue in this case are targeted primarily at different segments of the fan market and are for the most part sold in different retail outlets, there is some evidence of direct competition between Vornado and Duracraft. There was evidence that Vornado and Duracraft currently have several common customers. Def. Exh. 8. The court concludes it is more likely than not that there is some direct competition between the DT-7 and the Vornado Compact Model 180 fan. These two fans are approximately the same size and have a somewhat similar appearance. A consumer seeking to purchase a small fan would be likely to consider both of these models. Additionally, the court finds that the number of common customers and the amount of

direct competition between the plaintiff and the defendant are likely to be greater in the future.

Development of Duracraft. Duracraft was incorporated in 1989. It was founded by its president and CEO, Bernard Chui. Duracraft has experienced rapid growth since its inception. For the fiscal year ending December 31, 1992, Duracraft's net sales were $56 million. The company currently sells over sixty different home comfort products consisting primarily of humidifiers, heaters, and fans. Duracraft's primary customers are discount stores such as K-Mart, Sears, and Wal-Mart. In 1989 and 1990, Duracraft developed and sold several models of fans which did not use a spiral grill design.

Among its other products, Duracraft initially developed and sold a "personal" fan with an eight-inch fan blade and a radial grill design, the DT-8. Sales of that model were poor, however, and Chui decided that Duracraft should come up with a better small fan. Chui testified that in early 1990 he came up with the concept of producing a small fan that looked like a turbojet engine. He communicated this idea to a Duracraft engineer, Chi Hsiang Wang, who developed a number of prototypes. These later became the Duracraft Model DT-7. (The "7" designates the size of the fan blade -- seven inches.) Chui testified that the samples Wang developed were terrible because they did not produce much air and they were noisy. Tr. at 199. Duracraft did not produce these samples at the trial; Mr. Chui testified that the prototypes no longer existed. At some point in the development process, Chui decided -- in the words of defense counsel -- "to borrow some ideas from"

the Vornado Model 280-SS fan. The ideas borrowed included a spiral grill design very similar to the Vornado spiral grill design. Prior to the development of the DT-7, no fan manufacturer in the United States other than Vornado used such a spiral grill design. See Attachment 1 (attached to this opinion -- sampling of fans available in the U.S. market).

Mr. Chui purchased a Vornado fan in the Boston area in May of 1990. He took it back to his office, disassembled it, and spent several days examining it. He then shipped a Vornado 280 to Mr. Wang in Taiwan. By August of 1990, Duracraft had produced a spiral grill for the DT-7. See Attachment 3 (attached to this opinion). As is shown by a comparison of plaintiff's Exhibits U-1 and U-2, the Duracraft DT-7 grill is substantially similar -- though not identical -- to the Vornado 280 grill. As Duracraft notes, the curvature of the vanes in the DT-7 is slightly different. Most of the DT-7's sold by Duracraft contain 26 vanes in the grill, the same number as Vornado's. Some DT-7's are sold with 32 vanes in the grill. The DT-7 grill and Vornado's grills differ in size and in color and in some other respects. The overall appearance, however, is so similar as to suggest that the DT-7 was derived from the 280 grill.

The court finds, based on all of the evidence, that Duracraft intentionally copied the appearance of the Vornado spiral grill when it developed a spiral grill for the DT-7. The court was not persuaded by testimony of Duracraft witnesses suggesting that the reverse curving spiral grill was chosen by Duracraft because it was found to be the best performing design. No credible evidence was presented to

support the suggestion that prior to selling the DT-7 Duracraft performed any tests which indicated that the spiral grill performed better than other grills as far as the flow of air was concerned or that it was quieter. Nor was there any credible evidence to support Duracraft's suggestion that the spiral grill performed better on the Underwriter's Laboratories' "drop test" or that Duracraft could not have passed this test using a standard or straight radial grill. See e.g., Tr. Vol. V at 89-90. Cf. Id. at 236. Indeed, the evidence suggested that the DT-7 had some difficulty passing the drop test with a spiral grill. Id. at 90. Rather, the court concludes that Duracraft decided on the spiral grill because of its appearance. The court believes that Duracraft intended to use a grill on the DT-7 fan that had an appearance similar to the spiral grill on Vornado's products. The court concludes that Duracraft determined that it was entitled to copy the spiral grill because the grill was an article of manufacture not protected by Vornado's '324 patent. The court finds that Duracraft copied the Vornado spiral grill based on a good faith belief that the grill design was, as a matter of law, part of the public domain.

Because of the fan blade initially used by Duracraft, DT-7 samples still did not perform well even after the adoption of a spiral grill. Frank Marino of Duracraft sent a Vornado fan blade to Taiwan in late 1990 to see whether it would help the Duracraft people come up with a better fan blade for the DT-7. Duracraft developed a better performing blade for the DT-7 based on the Vornado blade.

The Duracraft DT-7 was openly exhibited at the International Housewares Show held at Chicago, Illinois, in

January of 1991. At that show, a representative of Vornado spoke to Duracraft employee Frank Marino and told him that Duracraft was "knocking us [Vornado] off" or words to that effect. Tr. Vol. V at 40. The court finds that Vornado was aware of the existence of the Duracraft DT-7 spiral grill by January of 1991. Vornado took no action to notify Duracraft of any legal objection plaintiff might have had to the DT-7, however, until this suit was filed in November of 1992. On May 6, 1991, Vornado filed an application for trademark registration with the Patent and Trademark Office. The application claimed a trademark in a spiral symbol used on Vornado's shipping containers and in its advertising. On June 30, 1992, the mark was placed on the Principal Register, Reg. No. 1,697,509. Vornado has claimed in this suit that Duracraft has infringed its registered trademark by using a spiral grill in the DT-7.

Duracraft has achieved the following sales volumes for the Turbo Fan: in the year ending 12/31/91 - 200,953 units; in the year ending 12/31/92 - 742,796 units; and in the eight-month period ending 8/31/93 - 778,264 units. Net sales on the DT-7 for these periods were approximately $1.3 million, $4.8 million, and $5.3 million, respectively. Duracraft has achieved this success while spending very little money on advertisements promoting the DT-7. The DT-7 is the only product manufactured by Duracraft that has a spiral grill design similar to Vornado's. Duracraft has achieved a high level of sales for some of its other fan products that use conventional radial grills. Duracraft gives a one-year limited warranty on the DT-7, but the warranty is essentially worthless because the cost to return the fan for repair is more than the cost of a new one.

The DT-7 was originally available in four colors, one of which ("camel") resembled the colors used by Vornado in its fans. That particular color was discontinued after the 1991 season, however, and different colors have since been used in the DT-7. Unlike Vornado, most of the colors used in the Duracraft DT-7 are bright or neon colors. See Def. Exh. 5; 7; 56. Duracraft applied for and the U.S. Patent Office issued a design patent on the design of the Duracraft DT-7 fan. Def. Exh. 3. Duracraft sells the DT-7 at a wholesale price of $6 to $7. The suggested retail price of the fan is between $10 and $15. Tr. at 194. The court concludes that the low price of the DT-7 is a significant factor in its success in the marketplace.

When Duracraft displays the DT-7 to retailers and the consuming public, the spiral grill of the fan is prominently featured. The packaging for the DT-7 in its first year of sales displayed images of the spiral grill on five sides of the product package. For DT-7 fans sold in 1992 and thereafter, Duracraft has used a package that has a cutout on the front of the box so that the entire spiral grill is displayed, something that it does not do for any of its other products. See e.g., Def. Exh. 102-A. Aside from a prominent visual display of the spiral grill, Duracraft's product packaging does not appear to be especially similar to Vornado's product packaging. Vornado's packaging features prominent pictorial views of its spiral grill. And there are obvious similarities between the spiral grill design used in the DT-7 and the one used in Vornado fans. From the point of view of a reasonable consumer viewing products as they appear in the marketplace, the spiral grill is likely to be the single most commanding and memorable visual feature of both the

DT-7 and the various Vornado fans. Thus, these two fans are likely to stand out from other fans on the market and are likely to leave a comparable mental impression in the mind of the consumer.

Based upon all of the evidence -- including, inter alia, the testimony of the witnesses, the evidence concerning Vornado's advertising of its products, Vornado's exclusive use of a spiral grill up until the introduction of the DT-7, evidence showing that the spiral grill was known in the industry to be an identification of Vornado, the distinctive look of the spiral design, and the likelihood that the visual image of the spiral grill suggests a vortex -- the court finds that Vornado's spiral grill design to a significant degree had come to be associated with Vornado products in the minds of a significant number of consumers at the time Duracraft began selling the DT-7 in 1991.

Both parties presented expert testimony concerning the performance characteristics of the spiral grill design versus other types of grills. This evidence was presented as a result of Duracraft's assertion that the spiral grill configuration is "functional" and therefore not entitled to protection as a trademark. Some of the issues addressed by the experts were whether a spiral grill design produces a stream of air with a lesser "spreading angle" than other grills and whether it does a better job than other grills of converting "rotational" energy imparted by the propeller into "axial" energy flowing forward along the axis on which the propeller rotates. Both parties agreed that creating a straight

column or beam of air is the proper design objective for ducted "axial flow" fans such as the DT-7 and the fans sold by Vornado.

Dr. Breidenthal, Vornado's expert, concluded that the spiral grill produced a wider spreading angle than did a standard radial grill. Tr. Vol. IV at 62. According to Dr. Breidenthal, this means that the spiral grill did a poorer job of maintaining the velocity of the air beam along the axis of the propeller than did a radial grill. Dr. Breidenthal's conclusion was based upon test results that were provided to him by Vornado. The tests were conducted by Vornado employees and involved taking velocity measurements of the air stream produced by fans having different grills. In one set of tests, conducted in August of 1992, Vornado employees took velocity measurements of the air streams produced by a Vornado fan fitted alternately with a spiral and a radial grill. Based on these test results, Dr. Breidenthal concluded that the spiral grill produced a wider spreading angle than the radial grill. See Pl. Exh. UU. This was indicated partially by the fact that the spiral grill produced a higher velocity stream very close to the grill face but a lower velocity farther away. Dr. Breidenthal concluded that the radial grill produced a "tighter" beam that would allow the air to penetrate into the room further than the spiral grill. Tr. Vol. IV at 88. He noted that the differences in velocities produced by these grills, however, were very small and would be 'totally negligible" for most applications. Id. at 86. A second set of tests, conducted in the summer of 1993, consisted of taking velocity measurements of the air streams produced by four different Duracraft DT-7 fans. See Pl. Exh. N-2; V-1,

-2, -3 and -4. Each fan had a different type of grill on it. Id. At Dr. Breidenthal's suggestion, Vornado took the data resulting from these tests, "normalized" the peak velocity so that the spreading angle of each fan could be compared, and then charted the results in the form of a graph. According to Dr. Breidenthal, the test results showed that the spreading angle on a Duracraft DT-7 fan with a 26-rib spiral grill (Pl. Exh. V-1) was approximately the same as a DT-7 with a 32-rib radial grill (V-3). He also concluded that the other pair of grills involved -- a 32-rib spiral grill (V-3) and a 32-rib "tangential" grill -- had spreading angles similar to each other and that the spreading angles for these two fans were smaller than for the first pair. Tr. Vol. IV at 101. Dr. Breidenthal gave his opinion that other grill designs beside the spiral design would produce spreading angles equal to or better than a spiral grill. Tr. at 101-02; 104-06.

The reliability of the test data used by Dr. Breidenthal was undermined to some extent by the manner in which Vornado conducted its tests. For example, when Vornado performed tests on four different grill structures it did so using four different Duracraft fans. As Duracraft pointed out, it is possible that the differences in test results for the four grills could have been attributable to differences in the fan motors rather than the grill structures. Vornado also adjusted the power input of the fans to achieve the same revolutions per minute on the propellers of each of the four fans tested. Again, this raises the possibility that the test results were a function of some variable other than the grill structure. Duracraft also pointed out that spreading angle alone does not present a complete picture of the efficiency of a particular grill because a grill may produce a

lower spreading angle at a cost of decreasing the velocity of the air stream. Dr. Breidenthal, who recommended that Vornado correct many of these problems before they conducted the tests, conceded these weaknesses but stated his opinion that the test data was nevertheless adequate to support his conclusions. Tr. Vol. IV at 152.

The court participated in an in-court comparison of a Vornado fan operating with no grill, with a spiral grill, and with a radial grill. Tr. Vol. IV at 91-92. The court could discern a difference in the effect of the air stream when the fan was operating with no grill as compared to when it was operating with a grill, but the court could not discern any difference in the velocity or effect of the air flow as between the radial and the spiral grill.

Duracraft's expert, Dr. Snyder, testified concerning tests that he performed on various grill designs. Dr. Snyder performed one set of tests using a Vornado fan (Def. Exh. 109). He performed another set of tests using a Duracraft DT-7 fan and six grill structures provided to him by Duracraft. One of the grill structures that was provided was the spiral design that is actually used in the DT-7. Def. Exh. 92B. The other five consisted of various designs; they were prototypes built by Duracraft for these tests. One of the other designs was a straight radial design containing 36 ribs. Def. Exh. 92A. Dr. Snyder testified that in his tests, the fan when equipped with the Duracraft spiral grill produced higher peak velocities at each station downstream and in general had higher velocities than when the fan was tested with each of the five other grill designs. Tr. Vol. IV at 176; Def. Exh. 73.

Duracraft attempted to persuade the court that these differences in velocity could be perceived by a person using the fan. Duracraft suggested that fairly small differences in velocity could be detected by human senses. Dr. Snyder pointed out that a person can sense fairly small changes in pressure on the hands, for example, and he noted that the dynamic pressure of air varies with the square of the velocity. Tr. Vol. IV at 186-89. The upshot of this testimony was to suggest that a small difference in velocity results in a proportionally greater increase in dynamic pressure, meaning that a person is likely to be able to detect even relatively small differences in the velocity of the air.

The court had some doubts concerning the manner in which Duracraft sought to prove the functionality of the spiral grill design. The grill structures that Dr. Snyder tested were designed and built by Duracraft in connection with this litigation. Tr. Vol. IV at 80. The court was not persuaded that these designs were once actual prototypes considered by Duracraft for the DT-7. Duracraft also performed tests on the grills before sending them to Dr. Snyder. Id. at 112-18. Duracraft recorded these test results but did not produce them in this case. Id. at 112. Dr. Snyder had no say in how the grills were configured. Although the court is aware of some of the difficulties inherent in attempting to compare various grills, there is some doubt in the court's mind as to whether Duracraft made an objective effort to provide Dr. Snyder with a spiral, radial, and other grill designs that would allow, in nontechnical terms, an "apples to apples" comparison. As Vornado pointed out, the radial grill that Dr. Snyder was asked to test contained 36 ribs -- at least four more than

appear to be necessary to pass a UL "probe test." Cf. Pl. Exh. V-3. There was also a difference in the depth of the ribs of the radial and spiral grills tested by Dr. Snyder. Tr. Vol. IV at 220. Moreover, at the time of the tests, Duracraft was in possession of a "tangential" radial grill that it decided not to provide to Dr. Snyder for testing. Id. at 114-16. Dr. Snyder's basic directive from Duracraft was to test and draw conclusions concerning the particular grills he was given rather than to test and draw conclusions concerning the performance of radial and spiral grills in general or to determine whether other grill designs are available that would perform as well as or better than a spiral design similar to Vornado's. See e.g., id. at 228-29; Id. at 104, 105-09. These factors limit the significance and scope of the conclusions that can be drawn from Dr. Snyder's tests. Basically, the tests showed that the spiral grill that Dr. Snyder was provided performed somewhat better than the other grills he was provided.

Having considered all of the evidence presented, the court finds that any difference in performance of a spiral grill of the type used by Vornado and Duracraft and that of a conventional grill such as a radial design is minimal at best. The court finds that an ordinary purchaser exercising due care would be unable to discern any difference in performance between these spiral grills and several other types of grills, including a straight radial grill. The type of testing that a consumer would perform -- standing a short distance from the fan and feeling the air flow -- would disclose no difference between a radial and spiral grill. There is simply no practical difference in the performance between such grills. As for the issue on which the parties

expended so much effort -- that is, whether the use of a spiral grill design produces a scientifically measurable increase in the velocity of the air stream along the propeller's axis, as compared to other feasible designs -- given the uncertainties underlying the tests performed by both parties and the limited scope of the tests performed, the court must conclude that the evidence on that proposition was inconclusive; the proposition was not shown either to be true or false.

Vornado presented the testimony of several witnesses as part of an effort to persuade the court that the similarity in appearance between the DT-7 fan and Vornado fans was likely to cause some confusion among consumers. Ms. Shirley Kibby, from State College, PA, testified that she had purchased both DT-7 fans and a Vornado fan. Although she knew the fans were sold under different brand names, Ms. Kibby testified that she believed after buying them that, due to the similarities in their appearance, there was a high probability that the fans were actually manufactured by the same company. She indicated this belief was based in part on a view that makers of expensive products sometimes sell a less expensive version of the product under a different brand name. Tr. Vol. I at 90-91. Another witness was Peggy Williams, whose husband sells Vornado fans in his hardware store. When Mrs. Williams saw a DT-7 on her husband's desk she thought that it was a Vornado, primarily because of "the swirl of the grill." Tr. Vol. III at 115-19. She did not notice the name Duracraft on the fan. She asked her husband if Vornado had made a new small fan, but he explained that it was not a Vornado. Id. Kevin Kelly, a purchaser for a discount store, testified that on one occasion

when he was scouting for products to buy he came across a stack of discounted fans that he believed to be Vornado fans but which he later came to find were Duracraft fans. See Tr. Vol. III at 100-04. Richard Reischmann, an employee of a store that sells Vornado fans, knew upon seeing the DT-7 for the first time that it was a "copycat" or "knockoff" of a Vornado. Id. at 124-25. He jokingly characterized the DT-7 as a "mini-Vornado."

Conclusions of Law.

Jurisdiction. This court has subject matter jurisdiction to hear the case under 28 U.S.C. § 1331, 28 U.S.C. § 1332(a), 28 U.S.C. § 1367, and 15 U.S.C. § 1121.

Count One -- Alleged Infringement of the Registered Trademark.

Count One of the complaint alleges that Duracraft has infringed upon Vornado's registered trademark (Pl. Exh. A) through the use of a spiral grill design in the Duracraft DT-7 "Turbo Fan." The infringement of a registered trademark is made actionable by 15 U.S.C. § 1114. Duracraft does not dispute the validity of Vornado's registered mark. Instead, Duracraft argues that the registered mark does not cover a three dimensional "product configuration" such as the spiral grill in the DT-7.

A trademark is defined as including "any word, name, symbol, or device or any combination thereof" used by any person "to identify and distinguish his or her goods, including a unique product, from those manufactured or sold

by others and to indicate the source of the goods, even if that source is unknown." 15 U.S.C. § 1127. Trademarks may be registered by filing an appropriate application with the Patent and Trademark Office and by complying with the rules and regulations issued by that agency. See 15 U.S.C. § 1051. Section 32 of the Lanham Act makes liable any person who, without the consent of the owner thereof, uses in commerce "any reproduction, counterfeit, copy, or colorable imitation of a registered mark" in connection with the sale of goods if such use is likely to cause confusion, or to cause mistake, or to deceive. 15 U.S.C. § 1114.

The court agrees with Duracraft that its use of a spiral grill in the DT-7 does not constitute an infringement of Vornado's registered trademark. The court cannot agree with Vornado's suggestion that its registered mark consists of "the [spiral] grill design." Vornado's application and trademark registration indicate only that a printed two-dimensional spiral symbol was intended to be registered. As Vornado concedes, regulations issued by the Patent and Trademark Office set forth specific requirements concerning trademark applications, including a requirement that the application contain a drawing that "shall be a substantially exact representation of the mark as used on or in connection with the goods." 37 C.F.R. § 2.51. The drawing that accompanied Vornado's trademark application depicted only a printed spiral symbol. There was no drawing showing the use of the mark as a three dimensional device that was part of the goods. Cf. 37 C.F.R. 2.51(d). The claim language in Vornado's trademark application did not indicate that the trademark consisted of a fan grill. The application was drafted in such a way as to give no notice that the plaintiff

was claiming trademark rights in any three-dimensional configuration of goods. Rather, the claim language indicated only that the mark consisted of a printed symbol applied directly to shipping containers for Vornado's goods or on printed advertisements for the goods. This failure is instructive under the circumstances. Clearly, the statutes and regulations contemplate a full disclosure concerning the use of a mark so that a determination may be made by the patent office and by any interested parties as to whether the mark is properly registrable. Cf. 15 U.S.C. § 1072 (Registration constitutes constructive notice of claim of ownership of mark.) Such disclosure is particularly important when the asserted mark consists of a device or configuration that is part of the goods because "functional" devices are not entitled to trademark protection. Yet, despite the fact that Vornado itself used a spiral grill in its fans at the time it filed the trademark application, Vornado did not seek to register its grill as a trademark. In light of the allegation by Vornado in this case that the registered mark was apparently intended to protect the spiral grill itself, the court must conclude that Vornado's trademark application to the Patent and Trademark Office suffered from a lack of candor.

The court finds no infringement on Count One. The use of the DT-7 fan grill, even if it may be said to incorporate a spiral symbol, is not a "reproduction, counterfeit, copy, or colorable imitation of" the spiral symbol that was actually registered, by Vornado. Although an analogy may be made between the spiral symbol and the spiral grill, under the circumstances the use of the DT-7 spiral grill -- the grill being a necessary and integral part of the goods -- is a use of a spiral in such a different form that

it cannot be said to be a copy or imitation of the plaintiff's printed symbol. See Contour Chair Lounge Co. v. True-Fit Chair Inc., 648 F. Supp. 704, 715 (E.D. Mo. 1986).

Count Two -- Unfair Competition - Trade Dress Simulation.

Vornado's second claim alleges that Duracraft's use of a spiral grill in the DT-7 constitutes an infringement of Vornado's unregistered trademark or trade dress. Vornado contends that the spiral grill used in its products constitutes an unregistered trademark or trade dress entitled to protection under the Lanham Act. This claim is based on section 1125(a)(1) of Title 15, which provides in part:

> Any person who, on or in connection with any goods or services, or any container for goods, uses in commerce any word, term, name, symbol, or device, or any combination thereof, or any false designation of origin, false or misleading description of fact, or false or misleading representation of fact, which--
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> (A) is likely to cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person . . . . shall be liable in a civil action by any person who believes that he or she is likely to be damaged by such act.

The first issue the court must address in deciding Count Two is whether the spiral configuration of the grill can properly be considered as a trademark or trade dress under § 1125(a).

The Tenth Circuit has been one of many circuit courts to hold that a federal cause of action for trade dress infringement is available under § 1125. See Hartford House, Ltd. v. Hallmark Cards, Inc., 846 F.2d 1268, 1271 (10th Cir.), cert. denied, 109 S.Ct. 260 (1988). Although historically trade dress infringement consisted of copying a product's packaging, in its more modern sense it may refer to the appearance of the product itself. Hartford House, 846 F.2d at 1271. See also L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117 (Fed. Cir. 1993) (Design of the product itself may function as its packaging, serving to distinguish it from other products, and hence it may be protectable trade dress), cert. denied, 114 S.Ct. 291 (1993). Thus, in certain circumstances, the design of a product may qualify as a trademark or trade dress. We noted in Hartford House that

> [t]rade dress is a complex composite of features. One may be size, another may be color or color combinations, another may be texture, another may be graphics and arrangement and so on. Trade dress is a term reflecting the overall general impact, usually visual, but sometimes also tactile, of all these features taken together.

Id. at 1271. An action for trade dress infringement under

§ 1125 may be based on the concept of unprivileged product imitation. Hartford House, 846 F.2d at 1271.

The court notes that § 1125(a) was amended by the Trademark Law Revision Act of 1988. Although the Brunswick and Hartford House cases were based on an application of the pre-amendment § 1125, the legislative history behind the amendment makes clear that the reasoning of such cases is still valid. The Senate Report accompanying the amendment noted that although the former § 1125(a) as written appeared to deal only with a limited set of false representations, the courts had interpreted it as creating a broad federal law of unfair competition, including actions for violations of trade dress and certain nonfunctional configurations of goods. Senate Rep. No. 515, 100th Cong., 2d Sess. 40-41 (1988), reprinted in 1988 U.S.C.C.A.N. 5577, 5603. The 1988 amendment was intended to codify the broad interpretation of § 1125(a) the courts had given the section. Id. Moreover, the revised definition of "trademark" adopted in the Act intentionally retained the words "symbol or device" so as not to preclude the registration of shapes and configurations where they function as trademarks. Id. at 44; 5607.

In light of this background, the court determines that Vornado's alleged mark or trade dress in this case consists of a combination of a device and a symbol -- a fan grill with a spiral configuration. The court now turns to the issue of whether the trade dress is of a type that makes it eligible for protection under § 1125(a).

Distinctiveness of Vornado's trademark or trade dress.

A product's trade dress is eligible for protection under § 1125(a) if it is so distinctive as to become, in effect, an unregistered trademark. Brunswick Corp. v. Spinit Reel Co., 832 F.2d 513, 516-17 (10th Cir. 1987). In making this determination, the general principles qualifying a mark for registration under the Lanham Act are for the most part applicable. Two Pesos, 120 L.Ed.2d at 623. To be entitled to protection, a mark must be capable of distinguishing the applicant's goods from those of others. Id. The strength or distinctiveness of a mark determines both the ease with which it may be established as a valid trademark and the degree of protection it will be accorded. Beer Nuts Inc. v. Clover Club Foods Co., 711 F.2d 934, 939 (10th Cir. 1983) (quoting McGregor-Doniger Inc. v. Drizzle, Inc., 599 F.2d 1126, 1131 (2d Cir. 1979)).

Trademark strength is measured by its tendency to identify the goods sold under the mark as emanating from a particular, although possibly anonymous, source. Id. To aid in this determination, marks are often classified in categories of generally increasing distinctiveness. They may be: (1) generic; (2) descriptive; (3) suggestive; (4) arbitrary; or (5) fanciful. Two Pesos, 120 L.Ed.2d at 623 (citing Abercrombie & Fitch Co. v. Hunting World, Inc., 537 F.2d 4, 9 (2d Cir. 1976)). The latter three categories of marks, because their intrinsic nature serves to identify a particular source of a product, are deemed inherently distinctive and are entitled to protection. Two Pesos, 120 L.Ed.2d at 624. In contrast, generic marks -- those that refer to the genus of which the particular product is a species -- are not registrable

as trademarks. Id. Descriptive marks are generally not protectable because they do not inherently identify a particular source. However, descriptive marks may acquire the distinctiveness that will allow them to be protected under the Act. Id. This acquired distinctiveness is called "secondary meaning." Id.

Vornado's alleged mark or trade dress in this case consists of a fan grill with a spiral configuration. The court cannot conclude that this asserted mark is so distinctive as to constitute an arbitrary or fanciful mark. Trademarks that are fanciful or arbitrary "bear no relationship to the product or service with which they are associated." Beer Nuts, Inc., 711 F.2d at 939 n.5. That is not the case with the spiral grill. The design of the spiral grill was not something chosen from an infinite variety of possibilities. The evidence showed that the fan grills at issue are subject to certain design limitations. The UL "drop test" and "probe test," for example, together with consumer expectations concerning the performance of the fan and certain economic limitations all serve to limit the universe of feasible grill designs. Given this limited universe, the selection of the spiral grill cannot be considered so unrelated to the product as to be arbitrary or fanciful. On the other hand, the spiral grill also cannot be properly classified as a mark at the opposite end of the spectrum -- i.e, merely a generic mark. Generic marks are those that simply refer to a class of goods of which the particular product is a member. Cf. Beer Nuts, Inc., 711 F.2d at 939.

The spiral grill thus falls into either the descriptive or suggestive category of marks. A descriptive mark "identifies

a characteristic or quality of an article or service, . . . as, for example, its color, odor, function, dimensions, or ingredients." Id. A term is descriptive if it forthwith conveys an immediate idea of the ingredients, qualities, or characteristics of the goods. Id. at n.5. Because a descriptive mark is one which a competitor would likely need to use in describing his product, the term does not indicate that a product comes from a particular source. Id. at 939-40. Suggestive marks, on the other hand, contain something more. Suggestive trademarks "subtly connote something about the products." Id. at 939 n.5. A term is suggestive if it requires imagination, thought, and perception to reach a conclusion as to the nature of the goods. Id.

The court concludes that the Vornado spiral grill is properly classified as a suggestive mark. The grill design itself is as a striking one likely to create a mental image of a spinning column of air. Thus, the spiral grill creatively connotes something with regard to the performance of the product. At the same time, the visual impression created by the grill subtly serves to identify the maker of the fan. The mental images likely to be formed by a consumer viewing the grill help to identify the manufacturer. The image of a vortex and, possibly a tornado, suggest the name "Vornado" -- a name derived from "vortex" and "tornado." These characteristics indicate that the grill is indeed a suggestive mark.

Duracraft argues that a product configuration is necessarily a descriptive mark because the product itself immediately conveys an idea of its qualities or characteristics. The manner in which the Vornado spiral

grill connotes an idea about the product, however, and the way in which it helps to identify the manufacturer both require a relatively high degree of imagination and deliberation. The connotation is both ingenious and subtle and cannot be labeled merely "descriptive."

In making the foregoing assessment, the court is mindful that the distinctiveness of Vornado's asserted trademark or trade dress must be determined by examining the mark as it actually appears in the marketplace. Thus, the grill cannot be considered in isolation; it must be considered as part of the appearance of an overall product. But even though the distinctiveness of the Vornado mark is lessened by the fact that it appears as a part of a fan containing numerous other features, the court still believes that the spiral grill constitutes a suggestive mark in light of the fact that the spiral grill is the most dominant and memorable visual feature in the appearance of the fan as a whole. Cf. Hartford House, 846 F.2d at 1272 (Trade dress may consist of a single feature or a combination of features.)

As a suggestive mark, the intrinsic nature of the Vornado spiral grill serves to identify the source of the product. See Two Pesos, 120 L.Ed.2d at 624. Because of this, the plaintiff is not required to show that the mark has acquired "secondary meaning." Id. The mark is distinctive enough to merit protection under the Lanham Act.

Functionality of the Spiral Grill.

In addition to distinctiveness, it is also clear that eligibility for protection under § 1125 depends on whether or

not the trademark or dress is "functional." Two Pesos, 120 L.Ed.2d at 624. If an asserted trademark is "functional" it cannot be protected under § 1125. Id. In general terms, a product feature is functional "if it is essential to the use or purpose of the article or if it affects the cost or quality of the article." Inwood Laboratories v. Ives Laboratories, 456 U.S. 844, 102 S. Ct. 2182, 72 L.Ed.2d 606 (1982). Duracraft contends that the spiral grill at issue in this case is functional, arguing that the evidence showed that the spiral grill is better than other grills at focusing the air stream from the fan into a tight beam.

The requirement that a trademark be nonfunctional appears to have been adopted from the common law tort of unprivileged imitation. See Restatement of Torts 1st § 741 (1938). The common law definition of functionality set forth in the Restatement was as follows: "A feature of goods is functional . . . if it affects their purpose, action or performance, or the facility or economy of processing, handling or using them; it is non-functional if it does not have any of such effects." Id. The purpose of the requirement at common law was to prevent the hindrance of competition through allowing one person to monopolize a feature of goods that was beneficial to the use of the goods:

> A feature of goods, or of their wrappers or containers, may be functional because it contributes to efficiency or economy in manufacturing them or in handling them through the marketing process. It may be functional, also, because it contributes to their utility, to their durability or to the

> effectiveness or ease with which they serve their function or are handled by users. When goods are bought largely for their aesthetic value, their features may be functional because they definitely contribute to that value and thus aid the performance of an object for which the goods are intended. Thus, the shape of a bottle or other container may be functional though a different bottle or container may hold the goods equally well. * * * The determination of whether or not such features are functional depends upon the question of fact whether prohibition of imitation by others will deprive the others of something which will substantially hinder them in competition.
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> A feature is non-functional if, when omitted, nothing of substantial value in the goods is lost. A feature which merely associates goods with a particular source may be, like a trade-mark or trade name, a substantial factor in increasing the marketability of the goods. But if that is the entire significance of the feature, it is non-functional; for its value then lies only in the demand for the goods associated with a particular source rather than for goods of a particular design.

Id. at § 742, comment a.

In Brunswick Corp. v. Spinit Reel Co., 832 F.2d 513 (10th Cir. 1987), the Tenth Circuit adopted a test for functionality that turns on whether "the protection of the configuration would 'hinder competition or impinge upon the rights of others to compete effectively in the sale of goods.'" Id. at 519 (quoting Sno-Wizard Mfg., Inc. v. Eisemann Prods. Co., 791 F.2d 423, 426 n.3 (5th Cir. 1986)). This test serves to balance two potentially competing interests. One of these is the interest against granting protection to a feature that would serve to create a monopoly by preventing others from successfully competing with the individual who developed the feature. Such a monopoly would be contrary to the principle of free competition which is the foundation of our patent and trademark laws and which, presumably, is incorporated into § 1125. The other interest considered is that which underlies trademark protection itself -- the interest in allowing manufacturers to identify their products so that consumers can easily distinguish between competing products. The question of functionality is properly characterized as a defense and the burden of proving it is upon the defendant. Id.

In order to resolve the functionality issue in this case, the court must first reduce it to the proper level of specificity. The issue is not whether all fan grills, of which the spiral grill is a subset, are functional. All fan grills are functional in the sense that they must satisfy certain design objectives for the fan. All grills must keep objects such as fingers away from the fan blade while at the same time allowing air to flow past the grill. Moreover, on the specific type of fans involved in this case the vanes on the grill help

to straighten the flow of air from the blade. But the issue here is not simply whether the grill as a whole is functional; it is whether the spiral configuration of the Vornado grill (or the Duracraft grill for that matter) is functional. Cf. Brunswick, 832 F.2d at 520 ("This case is not concerned with whether the front cover [of a fishing reel] is functional, but whether the shape or configuration of the front cover is functional.")

If this inquiry were based solely on a common understanding of the word "function," the court would find that the spiral grill is functional. The evidence suggested that any grill structure with stationary or "stator" vanes of an appreciable depth helps to straighten the flow of air from the propeller. Thus, the vanes in a spiral grill are functional. Furthermore, all grills have some effect on the stream of air created by the fan blade and, intuitively, if one grill is configured differently from another the effect each has on the flow of air will be different. The court must therefore agree with Duracraft's factual assertion that any change in the curvature of the vanes would affect the flow of air. A spiral grill thus could be said to perform a "function" that is distinct from other grill configurations.

However, whether a feature is "functional" for purposes of trademark protection turns on whether the protection of the feature would hinder competition or impinge upon the rights of others to compete effectively in the sale of goods. Brunswick, 832 F.2d at 519. Although the availability of feasible design alternatives to the spiral grill is not determinative, it is a significant factor in

ascertaining whether the grill is functional. Id. at 520.[1] The evidence presented in this case did not show that the spiral grill performs any better than at least several other feasible grill designs. As far as the flow of air is concerned, the court concluded that purchasers would be unable to discern any difference in performance between a spiral grill and other types of grills with stator vanes, including the common straight radial design. Thus, the court believes that the spiral configuration does not, from a practical standpoint, represent any improvement in performance versus other grills. This fact strongly suggests that competitors who are unable to use the spiral configuration will not be hindered in their ability to compete. There are a number of successful fans on the market, including many sold by Duracraft, that use a grill design other than a spiral. Moreover, Duracraft failed to persuade the court that a spiral configuration in the grill produces a scientifically measurable improvement in performance of air flow versus at least several other feasible grill designs. The court is aware that a product feature may be regarded as functional where only a limited number of viable alternative features exist. Merchant & Evans, Inc. v. Roosevelt Bldg. Products Co., 963 F.2d 628 (3rd Cir. 1992). The evidence does not indicate, however, that the

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[1] Duracraft argues that where a structure "admittedly affects the performance of a mechanical device, the alleged existence of 'alternative' structures that may also affect a device's performance is irrelevant. Trademark eligibility turns on whether a claimed mark is 'non-functional,' not whether a claimed mark is allegedly 'as functional' as something else." Def. Prop. Find. of Fact ¶ 114. This assertion does not take into account the definition of "functionality" set forth in Brunswick.

spiral design is one of such a limited number of designs that affording it trade dress protection would unduly restrict competitors or would lead to exhaustion of available designs. Cf. Two Pesos, 120 L.Ed.2d at 627-28. Thus, the foregoing factors suggest that the spiral grill is nonfunctional.

Other factors as well indicate that the spiral configuration is not "functional." The evidence suggested that any of these feasible grill designs could easily be made to pass the UL "drop test", "probe test," and "impact test," and that a spiral grill configuration does not represent an improvement in those aspects of grill performance. Duracraft also failed to present persuasive proof that use of the spiral grill entails any savings in manufacturing costs as compared to other types of grills. And, as far as the aesthetic value of a spiral grill is concerned, the evidence presented was not sufficient to allow an assessment of the degree or significance of the spiral grill's aesthetic appeal. In sum, Duracraft has failed to show that a spiral configuration of the grill in any way serves to further the performance objectives of Vornado fans or of the DT-7. The spiral configuration of the ribs is essentially a symbolic feature that is conceptually separate from the utilitarian aspects of the grill.

Duracraft presented evidence showing that it markets the DT-7 fan based on a jet engine theme. The fans are sold under the trademarks "Air Duracraft" and "Turbo Fan." The court concludes from the evidence that being unable to use the spiral configuration would not adversely affect Duracraft's ability to market the DT-7 using a jet engine theme. Cf. Joint Exh. 3 at 80-81. The evidence indicated

that the vanes in the turbine of a jet engine actually more closely resemble a straight radial fan grill than the spiral grill. Pl. Exh. VV. The deposition testimony of Duracraft salesperson Ronald Izen suggested to the court that Duracraft could successfully compete with a different grill structure in the DT-7. Joint Exh. 3 at 80-81. Duracraft presented no evidence to show that the success of the DT-7 was due in any significant degree to the spiral grill configuration. The court believes that it is fairly obvious from the evidence presented that the most important factor in the success of the DT-7 is its low price, although Mr. Izen indicated that in his opinion the most important factor in consumers choosing the DT-7 was color. At any rate, there was no evidence to suggest that Duracraft could not compete just as effectively if the DT-7 had a different grill configuration.

Duracraft has not shown that its ability to compete or the ability of others to compete will be harmed if it is not allowed to copy the Vornado spiral grill. It has not been shown that the use of a spiral grill configuration is essential to the use or purpose of the DT-7 fan. Cf. Inwood Laboratories, supra. Nor has Duracraft presented any persuasive evidence showing that the spiral grill affects the cost or quality of the fan. Id. As far as the court can tell, there is simply no practical difference in the performance of the spiral grill and other types of grills such as the radial grill. If the spiral grill performs better in some respect than these grills, that fact has not been shown by the evidence here. The court must conclude that the value of the spiral configuration does not lie in its functional attributes; rather, its value lies primarily in its appearance. As the court has previously discussed, that appearance suggests something

about the performance of the product and also creatively suggests the identity of the manufacturer. Based upon the evidence presented and the standard set forth in Brunswick, the court concludes that Duracraft has failed to meet its burden of showing that the spiral configuration of the Vornado grill (or the DT-7 grill) is functional.

Estoppel.

Duracraft contends that principles of estoppel should bar Vornado from asserting that its spiral grill is nonfunctional. In support of this argument, Duracraft asserts that Vornado obtained the '324 utility patent based in part upon claims that the spiral grill was functional. Duracraft also notes that Vornado's advertising has featured claims concerning the functional attributes of the spiral grill. Vornado concedes that it has referred to its grill "performing various functions" but argues that it is now simply pointing out that "the spiral grill is not the only grill design that performs such functions." Pl. Proposed Find. of Fact ¶ 90.

The court cannot agree with Vornado's suggestion that its prior statements concerning the functionality of the spiral grill are entirely consistent with the position it has taken in, this case. What was declared in the '324 patent to be an "optimum flow of air" from the spiral grill is now represented to be a flow of air that is not quite as good as

other grill designs.[2] See Def. Exh. 9. Vornado claimed in the '324 patent that the curved rib in its grill, as compared with a conventional straight rib, "provides a less rigid grill structure which can be desirable under certain circumstances such as impact shocks." Id. Now, however, Vornado argues that any difference between the ability of the spiral grill and other grills to withstand impact shocks is insignificant. What Vornado described in advertisements as the "patented AirTensity Grill" is now claimed not to be patented (or patentable) as a separate article. Vornado's customers might be interested to learn that the grill which Vornado represents to be an advanced technological device designed to "amplify and re-enforce the naturally occurring vortex created by the propeller" and which "accomplishes a high degree of safety and functionality" is now said by Vornado to perform no function that other grills do not perform. While the various representations in advertisements could theoretically be considered legitimate "puffing" on Vornado's part, the court concludes that Vornado represented in the '324 patent that the spiral grill has a unique effect on the flow of air and that it is technologically superior to other grill designs. Such representations are not consistent with the position taken by Vornado in this case. Given this inconsistency, the court has carefully considered Duracraft's argument that Vornado's prior representations should estop it from now claiming that

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[2] The common meaning of "optimum" is "the amount or degree of something that is most favorable to some end . . . ." Webster's Seventh Collegiate Dictionary (1965) (emphasis added).

its grill is non-functional.[3] Duracraft's argument is based upon statutory estoppel, a doctrine founded upon the principle that one who claims and obtains a statutory benefit will be estopped from subsequently asserting that which is inconsistent with the previous claim. In Technicon Medical Information Systems v. Green Bay Packaging Inc., 687 F.2d 1032 (7th Cir. 1982), cert. denied, 459 U.S. 1106 (1983), the Seventh Circuit set forth three elements for statutory estoppel: (1) assertion by a party of entitlement to statutory right or privilege; (2) the receipt by that party of an actual benefit pursuant to the statute; (3) subsequent assertion by that party which is inconsistent with entitlement to the statutory benefit previously received. Id. at 1034. Duracraft argues that Vornado has enjoyed the benefits of the '324 patent by practicing the invention and by asserting the patent against third parties and that Vornado is now asserting a claim inconsistent with the patent.

The court recognizes and agrees with the underlying premise of Duracraft's argument: that Vornado may not obtain patent protection by arguing that the grill is functional and later obtain trademark protection by claiming that it is nonfunctional. Clearly, Vornado formerly claimed that the spiral grill was functional but has now changed its position and is claiming,that the grill is nonfunctional. Whether

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[3] If it were shown that Vornado had knowingly made false representations with an intent to mislead either the PTO or this court, the court would likely find that an award of any relief under § 1125 would be inequitable. Duracraft is not asserting, however -- and has not presented evidence sufficient to support - any claim that Vornado made these representations as part of an intentional effort to mislead. See Def. Prop. Findings of Fact.

Vornado can do so and still obtain relief under § 1125 consistent with the principles of equity depends, in the court's view, upon two factors: the extent of the benefit obtained by Vornado by virtue of its previous position and the degree of reliance reasonably placed upon that position by Duracraft or others.

As to the first factor, there can be no dispute that Vornado at least asserted that it was entitled to a statutory right. Vornado obtained the '324 patent based in part upon claims that the spiral configuration of the grill produced an "optimum" flow of air and was "less rigid" than other grill structures. The language used in the '324 patent (Def. Exh. 9) leaves no doubt that Vornado claimed the spiral grill as a part of its patented invention. Vornado also used the patent in letters sent to other manufacturers warning them not to infringe on the patent. These facts are sufficient to meet the first element of statutory estoppel.

The second element of statutory estoppel is the receipt by the party of an actual benefit pursuant to statute. Duracraft argues that Vornado's receipt of the '324 patent and its assertion of the patent against third parties is sufficient to meet this element. The court disagrees. The Technicon case, which is relied upon by Duracraft as support for its argument, is instructive in this regard. In Technicon the plaintiff had prepared and disseminated to its customers a reference manual containing a copyright notice. 687 F.2d at 1033. The defendant was hired by the plaintiff to provide certain services to those customers. The plaintiff subsequently brought an action alleging that the defendant had misappropriated trade secrets contained in the manual

despite the fact that the basis of trade secret protection was incompatible with copyright protection. The defendant argued that the plaintiff should be statutorily estopped from maintaining its trade secret claim because of plaintiff's assertion of entitlement to copyright protection. The court concluded that the plaintiff's act of publishing a work with a copyright notice did not result in a sufficient benefit to warrant application of statutory estoppel. The court stated that no actual benefit would be conferred on a copyright owner until an enforcement action was successfully maintained because only after such a proceeding would there be a final determination that the owner was entitled to the protection of the Copyright Act and some type of relief awarded. Id. at 1036. Thus, "[o]nly where a party obtains judicial enforcement of a statutory copyright and subsequently asserts trade secret protection as to the same material would the second element of statutory estoppel be present." Id.

The court concludes that statutory estoppel is likewise inappropriate under the facts of this case. Although the '324 patent was issued to Vornado based in part upon the assertion that the spiral grill was functional, there is no evidence that Vornado has ever obtained judicial enforcement of the patent. As such, there has been no final determination as to the validity of the patent or as to any of the claims made therein. (This is true regardless of the fact that the patent may carry with it a presumption of validity.) There is no evidence showing, that Vornado has obtained the essential benefits conferred by statute upon the owner of a valid patent -- a judicially enforceable right to exclude others from making or selling the patented invention and the right

to obtain damages for infringement of the patent. See 35 U.S.C. §§ 281, 283, 284. Under the reasoning of Technicon, then, Vornado has not received an actual benefit pursuant to statute.

The same is true as to Duracraft's argument that Vornado has received an actual benefit by asserting the '324 patent against third parties. The evidence cited to support this contention consists primarily of two letters written by Vornado. Def. Prop. Concl. of Law ¶ 31. Each letter was sent by Vornado to a separate fan manufacturer and each suggested that a fan produced by that manufacturer may have been infringing on the '324 patent. Def. Exh. 45, 46. The letters apparently deterred the manufacturers from selling the accused fans, although the evidence on this point was sketchy. There was also evidence that Vornado initiated a lawsuit against the Patton Fan Company for alleged infringement of the '324 patent and that this suit was subsequently settled. Tr. Vol. II at 150. The court concludes that this evidence is not sufficient to show receipt of an "actual benefit" within the meaning of statutory estoppel. The assertion of a right to enforce the patent by Vornado was just that -- an assertion. Cf. Technicon, 687 F.2d at 1036 ("The notice is merely an assertion of entitlement to statutory copyright protection and is not, of course, conclusive, . . .") No final determination was made as to the validity of the patent or to Vornado's entitlement to relief under the governing statutes. Cf. id. Additionally, the court also notes that no evidence has been presented that Vornado has ever asserted the patent against others to prevent them from producing a fan with a spiral grill design. All factors considered, this evidence is not sufficient to show

receipt of "an actual benefit pursuant to statute."

In addition to examining the extent of any benefit received, the court has also examined the degree of reliance placed by others upon Vornado's prior claims. As an initial matter, the court finds that any assumptions about reliance resulting from the general deterrent effect of the claims in the patent would be too speculative to warrant barring Vornado from asserting the nonfunctionality of the grill. Cf. Technicon, 687 F.2d at 1036-37.[4] As to the evidence of Duracraft's reliance, the court takes note of the contention that Duracraft specifically relied upon '324 patent and the claims made therein when it made the decision to produce the DT-7. See Tr. Vol. II at 28-29. The court finds that it is more likely true than not that Duracraft did indeed rely on the '324 patent and the court further finds that it was reasonable to do so. Under the circumstances, the court concludes that these facts warrant the application of the principle of estoppel against Vornado at least to some extent. The court does not find, however, that Duracraft's reliance is sufficient to preclude Vornado from asserting the nonfunctionality of the spiral grill or from pursuing its trade dress claim. Cf. Clamp Mfg. Co. v. Enco Mfg. Co., 870 F.2d 512, 516 (9th Cir. 1989) (Configuration of plaintiff's product, a "C" clamp, was nonfunctional even though there was an expired utility patent on the product and plaintiff's advertising had touted the product's utilitarian aspects.) Rather, the court finds that any relief for infringement of

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[4] As it pertains to a claim of detrimental reliance, evidence of any reliance by the two manufacturers previously mentioned upon the '324 patent is too vague to support a finding of estoppel against Vornado.

Vornado's trade dress can and should be tailored to mitigate the effects of Duracraft's reliance on the patent claims. Duracraft's reliance may excuse its infringement to some extent, but in the court's view it does not warrant preclusion of all relief -- particularly that which is prospective in nature.

Likelihood of Confusion.

In order to recover under § 1125(a), Vornado must prove that the use of a spiral grill in the DT-7 is likely to cause "confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of" Duracraft with Vornado, or "as to the origin, sponsorship, or approval of" Duracraft's DT-7 by Vornado. See 15 U.S.C. § 1125(a). The Lanham Act was intended to make actionable "the deceptive and misleading use of marks" and "to protect persons engaged in . . . commerce against unfair competition." Two Pesos. Inc. v. Taco Cabana Inc., 505 U.S._ , 112 S.Ct., 120 L.Ed.2d 615, 623 (1992).

A number of factors are relevant in determining whether a sufficient likelihood of confusion exists to warrant relief under § 1125. The Tenth Circuit has consistently applied the factors set forth in the Restatement of Torts § 729 (1938) to claims of trademark infringement. See Jordache Enterprises Inc. v. Hogg Wyld, Ltd., 828 F.2d 1482, 1484 (10th Cir. 1987). These factors would also be relevant to a claim of trade dress infringement. See Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S., 112 S.Ct._,

120 L.Ed.2d 615 (1992) (The principles governing trademarks apply as well to trade dress.) The Restatement factors are:

> (a) the degree of similarity between the designation and the trade-mark or trade name in
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> (i) appearance;
>
> (ii) pronunciation of the words used;
>
> (iii) verbal translation of the pictures or designs involved;
>
> (iv) suggestion;
>
> (b) the intent of the actor in adopting the designation;
>
> (c) the relation in use and manner of marketing between the goods or services marketed by the actor and those marketed by the other;
>
> (d) the degree of care likely to be exercised by purchasers.

Id. This list is not exhaustive. Jordache, 828 F.2d at 1484. All of the factors are interrelated, and no one factor is dispositive. Id.

Degree of similarity. The first factor to be considered is the degree of similarity between the DT-7 and Vornado's asserted trade dress. As the court indicated previously, this similarity is not to be measured simply by comparing in isolation the spiral grills used by each party. Rather, the court must examine the grills in context as part of a product sold in the marketplace. Consistent with this approach, Duracraft has identified a number of features that

distinguish the DT-7 from any of the fans made by Vornado. The overall configuration of the DT-7 differs from any Vornado fan. For example, the base and duct structure on the DT-7 is not particularly similar to that used on Vornado fans. The knob in the center of the DT-7 is unusual and distinctive and does not appear on any Vornado fan. Also, the neon colors used in the DT-7 are distinctive and unlike any of the plaintiff's products. As far as packaging is concerned, Duracraft correctly points out that the packaging used by Vornado bears little or no similarity to Duracraft's packaging. Each DT-7 package clearly indicates that the product is a "Duracraft" while the packaging for the plaintiff's products clearly states "Vornado." Also, there is a large price disparity between the DT-7 and even the least expensive Vornado fan, the 180 Compact. These distinctions, as well as others, are significant and weigh against a finding of similarity and the resulting likelihood of confusion that similar trade dress might entail.

The differences pointed out by Duracraft are such that a consumer would be able to differentiate the DT-7 from Vornado's products in a side-by-side comparison. A side-by-side comparison is not the test, however. Beer Nuts Inc., 711 F.2d at 941. The marks must be compared in light of what occurs in the marketplace. Id. "A prospective purchaser does not ordinarily carry a sample or specimen of the article he knows well enough to call by its trade name[;] he necessarily depends upon the mental picture of that which symbolizes origin and ownership of the thing desired." Id. "Therefore, the court must determine whether the alleged infringing mark will be confusing to the public when singly presented." Id.

Notwithstanding the differences highlighted by Duracraft, the court concludes that the similarity in the grill structures of the DT-7 and Vornado's fans is such as to outweigh the differences in the fans and to give rise to an inference of confusion. Cf. Beer Nuts, Inc v. Clover Club Foods Co., 805 F.2d 920, 925-26 (Beer Nuts II) (10th Cir. 1986) (Similarities are to be weighed more heavily than differences.) Although there are many differences between the DT-7 and Vornado's fans, the single most distinctive and memorable visual feature of each is the spiral grill. Thus, there is a high degree of similarity between the most dominant visible feature of the fans. "Trademarks may be confusingly similar if they suggest the same idea or meaning." Jordache, 828 F.2d at 1485. The spiral grill is a distinctive device whose appearance is symbolic of a vortex. Such distinctive symbolic marks are likely to "catch the eye of the customer and create a lasting general impression." Finn v. Cooper's Inc., 292 F.2d 555, 558 (C.C.P.A. 1961). The spiral configuration of the grill implies something about the performance of the fan by suggesting an image of a vortex of air. A verbal translation of the spiral configuration would likely include the term "vortex" and possibly "tornado." Thus, the image itself is also suggestive of the name Vornado. Because the grills in the DT-7 and Vornado fans are nearly identical in this regard, the fans are likely to leave a nearly identical mental impression in the mind of the consumer. Compare Attachments 4 and 5 (attached to this opinion). The court finds that, despite the differences between the DT-7 and Vornado fans, this similarity is likely to create confusion as

to whether Duracraft is associated or affiliated with Vornado or confusion as to the approval or sponsorship of the DT-7 by Vornado.

Defendant's Intent. Another factor to be considered in the confusion inquiry is the intent of Duracraft in adopting the spiral grill. The deliberate adoption of a similar mark may lead to an inference of intent to pass off goods as those of another, which in turn supports a finding of likelihood of confusion. Beer Nuts II, 805 F.2d at 927. The facts of this case present an unusual situation because of the claims made by Vornado in the '324 patent. There is no question that Duracraft intentionally adopted a grill that it knew to be nearly identical to one used by Vornado. Duracraft points out that, because of the '324 patent and its possible limitations, Duracraft in good faith could have believed that it was entitled to imitate the Vornado spiral grill. Thus, Duracraft cannot be said to have acted with a bad or wrongful motive when it adopted the spiral grill. Be that as it may, the fact that Duracraft intentionally adopted a similar grill reinforces the inference that there is a likelihood of confusion. The confusion among consumers that results from similar grills is the same regardless of whether Duracraft's motive in copying the grill is characterized as proper or improper.[5] Because Duracraft intentionally used a grill similar to Vornado's, the court finds that a presumption arises that the public is likely to be confused by the similarity. See L.A. Gear, Inc. v. Thom McAn Shoe

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[5] Although the propriety of Duracraft's motive is not relevant to the confusion inquiry, the court notes that it is relevant in determining what equitable relief, if any, is appropriate in this case.

Co., 988 F.2d 1117, 1132 (Fed. Cir. 1993) (If there was intentional copying the second comer will be presumed to have intended to create a confusing similarity and will be presumed to have succeeded; thus, the burden of proving that confusion has been avoided is on the copier.). See also Osem Food Indus. Ltd. v. Sherwood Foods, Inc., 917 F.2d 161 (4th Cir. 1990) (same). Cf. Two Pesos, 120 L.Ed.2d at 626. (The copier of an inherently distinctive mark may be seen as falsely claiming that his products may for some reason be thought of as originating from the plaintiff.) Additionally, the court concludes from all of the evidence that one of the purposes behind Duracraft's imitation of the Vornado grill was that Duracraft hoped, by producing a product with a look similar to Vornado's, to derive some benefit from Vornado's reputation for making efficient high-quality fans.

Use and Marketing of Products. A third factor relevant to confusion is the relation in use and manner of marketing between the DT-7 and Vornado fans. The court notes that the use to which such products are put is identical. As to the evidence concerning the marketing of these products, there was some evidence of common wholesale customers for the DT-7 and Vornado fans, although the fans are sold predominately in different outlets. The court also found from the evidence that it was likely that the DT-7 and the Vornado Model 180-C are to some degree directly competing products, with the DT-7 being a much less expensive alternative to the 180-C. Significantly, the level of direct competition between Vornado fans and the DT-7 is likely to increase in the future as Vornado expands or directs its product line toward the low end of the fan market. It

appears that both parties market their fans throughout the United States, although in terms of volume the DT-7 far outsells Vornado fans. On the whole, the court concludes that the level of competition between the DT-7 and at least some of Vornado's fans is a factor that contributes marginally toward a finding of a likelihood of confusion.

The specific manner in which the products involved in this case are presented to the public is also likely to have some affect on confusion. Duracraft sells the DT-7 in a box with a circle cut out of the front so that customers can see the actual spiral grill of the fan. The cutout accentuates the visual impact of the spiral grill and virtually eliminates the impact of the fan's other features. Vornado does not use such a package, but it also emphasizes the spiral grill when marketing Vornado fans. Cf. Finn, 292 F.2d at 559 ("[T]here is a likelihood of confusion, . . . if the dominant impression created by each picture design is the same, even though different word trademarks are associated with the picture trademarks.")

One of the most significant factors weighing against a finding of confusion is the fact that the products involved in this case and their packages clearly identify the manufacturer of the fans. The DT-7's package plainly identifies "Duracraft" as the manufacturer. The product itself also contains the mark "AirDuracraft" on a visible surface of the fan, although this mark is not prominent. Similarly, the Vornado fans and their packaging clearly identify Vornado as the manufacturer of the fan. Cf. Bose Corp. v. Linear Design Labs, Inc., 467 F.2d 304, 310 (2nd Cir. 1972) (There is hardly likelihood of confusion or

palming off when the name of the manufacturer is clearly displayed.) But cf. Bristol-Meyers Squibb Co. v. McNeil-P.P.C., Inc., 973 F.2d 1033 (2nd Cir. 1992) (In other cases the trade name may be a less dominant feature of the entire trade dress and thus have less force in countering other similarities between the two trade dresses.)

Degree of Care. A fourth factor to be considered in determining whether confusion exists concerns the degree of care likely to be exercised by ordinary purchasers. The significance of this factor arises from the view that confusion is more likely to occur when consumers devote little care to examining and purchasing products and is less likely when consumers exercise a high degree of care. The court believes that in one respect this factor marginally contributes to a finding of a likelihood of confusion. The DT-7 is very low priced -- selling for approximately ten dollars retail -- and is sometimes marketed near check-out counters as an impulse purchase item. Tr. Vol.IV at 121-22. Consumers are likely to exercise little care in gathering information that might dispel confusion arising from the fan's similarity to Vornado products. On the other hand, the great disparity in price between the DT-7 and any of the Vornado products is a factor that generally serves to distinguish these products. The disparity in price clearly serves to reduce the likelihood of confusing the DT-7 for a Vornado product.

Actual Confusion. Evidence of actual confusion, although it is not necessary for a finding of a likelihood of confusion, may be the strongest evidence to support such a determination. See Brunswick, 832 F.2d at 521. The court concludes that the "actual confusion" evidence presented by

Vornado in this case, although by no means overwhelming, makes a likelihood of confusion somewhat more probable. Vornado presented the testimony of several witnesses as part of an attempt to show actual confusion. Some of the testimony supported a finding that a likelihood of confusion exists as to whether Duracraft is associated with Vornado or confusion as to the approval or sponsorship of the DT-7 by Vornado. Ms. Shirley Kibby, a consumer who had purchased both DT-7 fans and Vornado fans, stated that the similarities in these fans led her to believe that they may have been manufactured by the same company.[6] Although she could clearly see that they were sold under different brand names, she stated that she believed that some brand name companies "often manufacture the more expensive product under a brand name, that they also sometimes manufacture a less expensive product under another name,

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[6] Duracraft pointed out that Ms. Kibby purchased a DT-7 before she ever became aware of Vornado fans. Thus, she clearly did not purchase a DT-7 as a result of any confusion arising from a similarity between the DT-7 and any Vornado product. Duracraft contends that Ms. Kibby's testimony is therefore irrelevant on the confusion issue. The court disagrees. The fact that Ms. Kibby expressed some confusion concerning the products after she examined both is relevant to whether there is such a similarity as to give rise to confusion.

Duracraft also suggests that there is no real evidence of actual confusion in this case, pointing out that Vornado did not attempt a survey of consumers to measure the fact or extent of any confusion. A survey would have been highly probative on this issue, but the absence of survey evidence is not dispositive. Vornado did submit some evidence concerning the state of mind of purchasers -- in the form of Duracraft customer response cards -- which supported an inference of a likelihood of confusion. Pl. Exh. I.

but still manufactured by the same company." Tr. Vol.I at 90-91. Another witness on the issue of confusion was Richard Reischmann, who is a sales supervisor for a Wichita retail outlet that sells both the DT-7 and Vornado fans. Upon seeing the DT-7 for the first time, Mr. Reischmann, described the DT-7 as a "mini-Vornado." Tr. Vol.III at 124. Mr. Reischmann realized, however, that the DT-7 was not a Vornado product but was what he considered a "knock-off" or "copycat" item. Id. at 124-25.

As an initial matter, the testimony of the witnesses served to underscore the similarity between the DT-7 and Vornado fans and the resulting association that a person viewing these products is likely to make. The testimony cited above also points out one aspect of the confusion that the court believes is likely to arise from Duracraft's use of a spiral grill in the DT-7. Although Mr. Reischmann, a salesperson intimately familiar with the Vornado product, was not confused by virtue of the look-alike grill, an ordinary consumer such as Ms. Kibby would be more likely to believe that the similarity in the spiral grills indicates some association or connection between Duracraft and Vornado or some sponsorship or approval of the DT-7 by Vornado. Cf. Gilbert/Robinson, Inc. v. Carrie Beverage-Missouri, Inc., 758 F.Supp. 512, 524 (E.D. Mo. 1991), aff'd, 989 F.2d 985 (8th Cir. 1993) (Even sophisticated customers may assume that many companies acquire satellites or subsidiaries.) This fact is underscored by the testimony of Mr. Kelly, who as a purchaser was likely to be more sophisticated than the average consumer. Mr. Kelly's testimony indicated that, when he saw DT-7 fans in a discount store, he thought that the fans were in fact

associated with or manufactured by Vornado. And, although Vornado presented no evidence of any attempt on its part to quantify or measure the level of confusion likely to result among consumers, the court was persuaded based upon all of the evidence that an appreciable number of consumers are likely to be confused or to make an incorrect mental association between Duracraft and Vornado. This confusion is likely to be greater in the future as Vornado takes the natural step of expanding its product line and marketing fans toward the "low" end of the fan market.

Likelihood of Confusion - Summary.

The foregoing are some of the factors relevant to the issue of the likelihood of confusion. Based upon a consideration of all of the evidence and the relevant standards, the court concludes that the plaintiff has shown that a sufficient likelihood of confusion exists to warrant relief under § 1125. The high degree of similarity between the spiral grills used in the DT-7 and Vornado fans is likely to create in the mind of the average consumer an impression of the products being similar, if not identical. This is due in large part to the suggestive qualities of the spiral configuration. Of course, "confusion" under § 1125 must amount to something more than a conclusion that two products are similar. Confusion does occur, however, when consumers make an incorrect mental association between the involved commercial products or their producers. Jordache, 828 F.2d at 1484. The nearly identical mental impression created by the spiral grills used in these products -- particularly when the products are singly presented -- is likely to cause an appreciable number of consumers, when

exercising ordinary care, to incorrectly believe that the maker of the DT-7 is connected, affiliated, or associated with the maker of Vornado fans. It is also likely to cause consumers confusion or mistake as to whether the DT-7 is sponsored or approved by Vornado. Although the testimonial evidence of "actual confusion" relied upon by Vornado would not be sufficient by itself to support this conclusion, the court finds that the evidence taken as a whole supports this view. The court finds that the sale of the DT-7 with a spiral grill is the use in commerce of a device or a combination of a symbol and a device, in connection with goods, which is likely to cause confusion as to the affiliation, connection, or association of Duracraft with Vornado, or confusion as to the sponsorship or approval of the DT-7 by Vornado. As such, Vornado has shown an infringement of trade dress actionable under § 1125.

Laches.

Duracraft has asserted the defense of laches and argues that Vornado's inexcusable delay in bringing suit warrants dismissal of Vornado's claims. According to Duracraft, Vornado sat back over a period of one and one-half years and voiced no objection -- despite the fact that it was aware of the DT-7's spiral grill -- while Duracraft worked to make the DT-7 into a successful product.

Laches consists of two elements: (1) inexcusable delay in instituting suit; and (2) resulting prejudice to the defendant from such delay. Brunswick, 832 F.2d at 523. The court concludes that both elements are present in this case. The evidence indicated that Vornado learned of the

existence of the DT-7 in January of 1991. Despite this knowledge, Vornado took no steps to notify Duracraft that the DT-7 infringed on Vornado's alleged trade dress until this suit was filed on November 6, 1992. This delay was inexcusable. The court finds unpersuasive Vornado's vague assertion that the delay was caused by the need to find out more about the DT-7. The court is inclined to agree with Duracraft's suggestion that Vornado was attempting during this time to work out a legal strategy to protect what it considered to be the "Vornado look" of the spiral grill. The court recognizes that there is some ambiguity in the law covering patents and trademarks. To some extent, this ambiguity may explain the plaintiff's course of action. As far as the court is concerned, however, no excuse for the delay in instituting suit has been shown.

The evidence also shows resulting prejudice to Duracraft from the delay. By the time Vornado got around to notifying Duracraft that it was claiming the spiral grill as a protected trade dress, Duracraft had sold nearly one million DT-7 model fans in the United States. The court finds that it would be inequitable under these circumstances to allow Vornado to profit from its delay in notifying Duracraft of its claim.

Although the court finds that Vornado is guilty of laches, the court does not agree with Duracraft's argument that Vornado's delay merits dismissal of the lawsuit or that it should serve as a complete bar to relief. The delay by itself was not of such a character that it amounted to a complete acquiescence by Vornado in Duracraft's use of the spiral grill or an assurance by Vornado that it would not act

at some point to protect its trade dress. (Indeed, Duracraft argues that Vornado did not acquiesce in Duracraft's use of the grill but was "secretly planning for this lawsuit" during the delay.) Under the circumstances, the court concludes that the prejudice arising from Vornado's delay is such as to preclude any award of monetary relief for infringement of Vornado's trade dress. The delay by itself, however, has not resulted in such prejudice to Duracraft that it should be allowed to continue unimpeded in the future to infringe on Vornado's trade dress. There is no persuasive evidence that Duracraft will be irreparably harmed by prospective injunctive relief requiring Duracraft to refrain from manufacturing and selling the DT-7 with a spiral grill, provided Duracraft is given sufficient time to make a change in the grill. As will be set forth more fully in the court's discussion of an appropriate remedy for infringement of the trade dress, the court concludes that an equitable remedy may be fashioned which upholds the policies underlying § 1125(a) while at the same time relieving Duracraft from unfair prejudice arising from Vornado's conduct in this matter.

Relief.

Monetary Relief. When a violation of § 1125(a) is established, the plaintiff is entitled, subject to the provisions of sections 1111 and 1114,[7] and subject to the principles of

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[7] Section 1111 provides in part that where the registrant of a mark does not display notice that his mark is registered, no profits and no damages shall be recovered unless the defendant had actual notice of the registration. Section 1114 provides in part that in certain cases of infringement of a registered mark, the registrant may not recover profits

equity, to recover: (1) defendant's profits, (2) any damages sustained by the plaintiff, and (3) the costs of the action. 15 U.S.C. § 1117.

The court concludes that principles of equity preclude Vornado from recovering any profits or damages in this case. Vornado's failure to provide timely notice that it considered the spiral grill to be a protectable trade dress, together with the fact that Duracraft reasonably relied on Vornado's claims in the '324 patent that the spiral grill was functional, would make any award of profits or damages in this case inequitable. Duracraft undertook development of the DT-7 based in part upon claims in the '324 patent that the spiral grill was functional. Duracraft evidently made a legal determination that the spiral grill was not protected by the '324 patent -- a proposition Vornado does not dispute. Also, Vornado learned of the DT-7 fan in January of 1991 but took no steps to notify Duracraft that the fan infringed on Vornado's trade dress until November of 1992, by which time Duracraft had achieved considerable sales of the DT-7. Thus, prior to the institution of suit, Duracraft had no notice whatsoever of Vornado's contention that the spiral grill could not be freely copied. Moreover, even after the institution of suit, the court concludes that because of Vornado's claims in the '324 patent it was reasonable for Duracraft to continue using the spiral grill until such time as this court could make a determination as to whether or not the grill was a protected trade dress. Cf. Bonito Boats v. Thunder Craft Boats, 489 U.S. 141, 109 S.Ct. 971, 103 L.Ed.2d 118 (1989) (An

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or damages unless the acts were committed with knowledge that the imitation was intended to cause confusion, mistake, or deceit.

award of damages in an action for patent infringement is made contingent upon fixing notice of patent on the article; the public is entitled to rely upon the lack of notice in exploiting shapes and designs accessible to all.) The court concludes that under the circumstances it would be inequitable to award Vornado any profits or damages arising from sales of the DT-7 unless Duracraft continues to make and sell an infringing fan after it has been given a reasonable time in which to adopt a grill that does not infringe on Vornado's trade dress.

The same principles of equity prevent Vornado from receiving an award of costs of this action. Based upon the evidence, the court concludes that a sizeable portion of the costs associated with this suit likely could have been avoided or reduced had Vornado acted in a timely fashion in providing Duracraft with notice of its claims. The court finds that each party should bear its own costs.

Attorney's Fees. Vornado seeks an award of attorney's fees under § 1117(a), which provides that in "exceptional cases" the court may award reasonable attorney's fees to the prevailing party. The "exceptional case" requirement is generally met only where there is a showing of some degree of bad faith on the part of the infringer. See Takecare Corp. v. Takecare of Oklahoma, Inc., 889 F.2d 955, 957 (10th Cir. 1989). The court concludes that there has been no showing of bad faith on the part of Duracraft that would justify an award of attorney's fees. The court was persuaded by the evidence suggesting that Duracraft had a good faith belief that it was entitled to copy the Vornado spiral grill. See e.g., Tr. Vol. II

at 28-29.

Injunctive Relief. Under 15 U.S.C. § 1116, this court has the power to grant injunctions, according to the principles of equity and upon such terms as the court may deem reasonable, to prevent a violation under § 1125(a).

As part of the relief sought in this case, Vornado asks the court to enjoin Duracraft from using a spiral grill in the DT-7. In response, Duracraft has argued that under the federal patent laws it has a right to copy Vornado's spiral grill and, consequently, any injunctive relief under § 1125(a) is necessarily limited to requiring Duracraft to eliminate consumer confusion by taking such steps as labeling the DT-7 more clearly or including a disclaimer on the DT-7's packaging.

Duracraft's argument merits serious consideration in light of a trio of cases decided by the Supreme Court dealing with the preemptive effect of the federal patent laws. In Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 84 S.Ct. 784, 11 L.Ed. 87 (1964), the Supreme Court held that a state's unfair competition law could not, consistently with the federal patent laws, prohibit the copying of an article which is protected by neither a federal patent nor a copyright. The article at issue in Sears was a type of light fixture on which the plaintiff had procured design and mechanical patents. Sometime thereafter, Sears began selling a substantially identical light fixture. The plaintiff brought an action against Sears alleging infringement of the patents under federal law and unfair competition under state law. The district court found that the patents were invalid

for lack of invention, but went on to find that Sears engaged in unfair competition by copying the fixtures. The court enjoined Sears from selling light fixtures identical to the plaintiff's. The issue of unfair competition, after being affirmed by the circuit court, went to the Supreme Court.

In addressing the unfair competition claim, the Sears Court first outlined the federal patent laws and their underlying policies. The Court noted that the federal patent laws were a product of the Constitutional grant of authority to Congress "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U. S. Const., Art.I, §8, cl.8. Consistent with this provision, Congress has enacted a scheme of laws which reward an inventor of a new and useful article by granting a patent -- which constitutes a statutory monopoly to make and sell the article for a limited term of years. This scheme serves to promote invention while at the same time preserving free competition. Inventors are encouraged to disclose their inventions so as to gain the protection of a patent. Free competition is served by the fact the monopoly granted by the patent is limited to a term of years, after which the right to make the article passes to the public. After outlining the federal standards and the interests they promote, the Court continued:

> Obviously a State could not, consistent with the Supremacy Clause of the Constitution, extend the life of a patent beyond its expiration date or give a patent on an article which lacked the level of invention required

> for federal patents. To do either would run counter to the policy of Congress of granting patents only to true inventions, and then only for a limited time. Just as a State cannot encroach upon the federal patent laws directly, it cannot, under some other law, such as that forbidding unfair competition, give protection of a kind that clashes with the objectives of the federal patent laws.

11 L.Ed. at 666-67. After noting that the plaintiff's light fixture had been held not to be entitled to either a mechanical or a design patent, the court stated:

> An unpatented article, like an article on which the patent has expired, is in the public domain and may be made and sold by whoever chooses to do so. What Sears did was to copy [plaintiff's] design and to sell lamps almost identical to those sold by [plaintiff]. This it had every right to do under the federal patent laws. That [plaintiff] originated the pole lamp and made it popular is immaterial. "Sharing in the goodwill of an article unprotected by patent or trade-mark is the exercise of a right possessed by all -- and in the free exercise of which the consuming public is deeply interested." [citing Kellogg Co. v. National Biscuit Co., 305 U.S. 111, 59 S.Ct. 109, 83 L.Ed. 73 (1938).]

Id. at 667. The Court concluded that the state's attempt to prevent Sears from copying and selling the lamp was an encroachment on the federal patent system and was preempted under federal law. The Court did note that, in appropriate circumstances, a state could

> require that goods, whether patented or unpatented, be labeled or that other precautionary steps be taken to prevent customers from being misled as to the source, just as it may protect businesses in the use of their trademarks, labels, or distinctive dress in the packaging of goods so as to prevent others, by imitating such markings, from misleading purchasers as to the source of the goods. But because of the federal patent laws a State may not, when the article is unpatented and uncopyrighted, prohibit the copying of the article itself or award damages for such copying.

Id. at 668.

The Supreme Court reiterated these principles in a companion case decided the same day as Sears. That case, Compco Corp. v. Day-Bright Lighting, 376 U.S. 234, 84 S.Ct. 779, 11 L.Ed.2d 669 (1964), presented facts nearly identical to Sears. The result was the same, too, as the Court again found that the federal patent laws preempted a state unfair competition law. The Court recognized that problems of confusion might arise from competitors making similar products, but held that a state could not remedy that

confusion by prohibiting copying of the article:

> That an article copied from an unpatented article could be made in some other way, that the design is "nonfunctional" and not essential to the use of either article, that the configuration of the article copied may have a "secondary meaning" which identifies the maker to the trade, or that there may be "confusion" among purchasers as to which article is which or as to who is the maker, may be relevant evidence in applying a State's law requiring such precautions as labeling; however, and regardless of the copier's motives, neither these facts nor any others can furnish a basis for imposing liability for or prohibiting the actual acts of copying and selling. [citing Kellogg Co. v. National Biscuit Co.]

In a more recent case, Bonito Boats v. Thunder Craft Boats, 489 U.S. 141, 109 S.Ct. 971, 103 L.Ed.2d (1989), the Court again addressed a state unfair competition law. The issue in Bonito Boats concerned a Florida law prohibiting the use of a direct molding process to copy unpatented boat hulls. In finding that this law was preempted, the Court reaffirmed the conclusion of Sears and Compco that "the efficient operation of the federal patent system depends upon substantially free trade in publicly known, unpatented design and utilitarian conceptions." 103 L.Ed.2d at 138. The Court noted that the patent laws encourage the creation and disclosure of advances in

technology and design by granting the exclusive right to practice such inventions for a limited period of years. The ultimate goal of the patent system is to bring new designs and technologies into the public domain through disclosure. Id. One consequence of this system is that individuals are generally free to copy any article that the patent law leaves in the public domain. Designs and utilitarian ideas that are not protected by a patent are generally in the public domain and may be "slavishly copied to the last detail." Because the restrictions in the Florida law were found to interfere with the strong federal policy favoring free competition in ideas which do not merit patent protection, the Court held that the state law was preempted.

At first glance, the three cases cited above would seem to say that Duracraft has a right under the federal patent laws to copy the spiral grill. A key distinction between those cases and the instant case, however, is that Vornado's claim of unfair competition is brought under a federal statute, 15 U.S.C. § 1125(a). Thus, the cornerstone of the Supreme Court's holding in Sears, Compco, and Bonito Boats -- federal preemption of state law -- is not present in this case. The Supreme Court has indicated that a federal law of unfair competition would implicate different interests from state laws. See Bonito Boats, 103 L.Ed.2d at 144 (In enacting the Lanham Act, Congress has given federal recognition to many of the concerns that underlie the state tort of unfair competition, and the application of Sears and Compco to nonfunctional aspects of a product which have been shown to identify source must take account of competing federal policies in this regard.) See also Compco,

376 U.S. at 238 (Defendant may copy a design that is "not entitled to a design patent or other federal statutory protection." (emphasis added)).

At least two circuit courts have addressed the issue of whether copying of an unpatented article can be prohibited under § 1125(a) in light of the Supreme Court's interpretation of the patent laws. In L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117 (Fed. Cir. 1993), the plaintiff alleged that the defendant's production of a shoe similar to its own was an infringement of trade dress under § 1125(a). The circuit court affirmed the district court's ruling that the configuration of the plaintiff's shoe was distinctive and nonfunctional and was eligible for trade dress protection. The court then addressed the issue of likelihood of confusion and whether the defendant's marketing of a similar shoe was a violation of § 1125. The Federal Circuit first noted that the Sears/Compco and Bonito Boats decisions could not be read as dealing only with preemption of state law because in each case the Court discussed and sought to balance the domains of patent and other forms of intellectual property. The circuit then turned to the relationship of § 1125(a) to these decisions and concluded:

> The 1988 amendment of § 43(a) [§ 1125(a)] codified in federal law the evolving common law of unfair competition with respect to trade dress, and "filled an important gap in federal unfair competition law." Senate Rep. No. 515, 100th Cong., 2d Sess. 40-41 (1988), reprinted in 1988 U.S.C.C.A.N. 5577, 5603. This step provided reassurance that protection

> of distinctive trade dress was not eliminated by Sears and Compco, by codifying the common law protection against confusion and deception.

Id. at 1131. Still, the court opined, it would exceed the Congressional purpose to interpret amended § 1125(a) as creating a new form of industrial design protection. Id. After considering the competing interests the court ultimately determined that copying the nonfunctional design of a product could be prohibited under § 1125(a) where the statutory requirement of likelihood of confusion was met, although the court found no likelihood of confusion under the particular facts of the case. Id. at 1132.

Similarly, in Kohler Co. v. Moen Inc., 1993 WL 515722 (7th Cir., Dec. 14, 1993), the Seventh Circuit addressed these issues and came to largely the same conclusion. Kohler dealt with an asserted trademark in a distinctively configured faucet handle. The court rejected the argument that granting trademark protection to this configuration was inconsistent with the Supreme Court's patent decisions and the federal policy against granting perpetual monopolies. The Seventh Circuit was of the view that patent and trademark are basically distinct areas of law which protect different interests, but that "any conflicts between the patent laws and the Lanham Act should be resolved by a careful application of traditional bases for determining the propriety of trademark protection such as likelihood of confusion, functionality, and distinctiveness." Id. at * 8. In support of this, the court relied on the Supreme Court's observation in Two Pesos that a

requirement that trade dress be nonfunctional was sufficient to assure that competition would not be unduly hindered:

> Suggestions that under the Fifth Circuit's law, the initial user of any shape or design would cut off competition from products of like design and shape are not persuasive. Only nonfunctional, distinctive trade dress is protected under § 43(a). The Fifth Circuit holds that a design is legally functional, and thus unprotectable, if it is one of a limited number of equally efficient options available to competitors and free competition would be unduly hindered by according the design trademark protection. [cite omitted] This serves to assure that competition will not be stifled by the exhaustion of a limited number of trade dresses.

Two Pesos, 120 L.Ed.2d at 627-28.

This court agrees that protection against copying nonfunctional trade dress under § 1125(a) is not necessarily inconsistent with the federal patent laws. It must be presumed that Congress was aware of these competing interests when it enacted the 1988 Trademark Law Revision Act and codified the view that § 1125(a) was broad enough to protect certain product configurations. Protection of trade dress, no less than of trademarks, serves the Lanham Act's purposes of securing to the owner of the mark the goodwill of his business and to protect the ability of consumers to distinguish among competing producers. Two Pesos, 120

L.Ed.2d at 627. Such protection fosters competition and the maintenance of quality by securing to the producer the benefits of good reputation. Id. The 1988 amendments to § 1125(a) must be taken as an indication that Congress decided to stand by these interests and tolerate whatever tension there is between them and the interests furthered by the patent laws. Cf. Bonito Boats, 103 L.Ed.2d at 144. Because statutes are to be construed, if possible, in harmony with the Constitution and with other applicable statutes, the court concludes that the "right to copy" is not an absolute one but is accompanied, as far as nonfunctional trade dress is concerned, by the obligation under § 1125(a) to avoid confusion, mistake or deception. Cf. L.A. Gear, 988 F.2d at 1132.

After considering all of the interests involved and the equities of this case, the court concludes that Vornado is entitled to injunctive relief.

Numerous factors weigh in Vornado's favor in determining whether the court should prevent a violation of § 1125(a) by prohibiting Duracraft from using the spiral grill in the DT-7. The spiral grill is a highly distinctive configuration that has a considerable capacity to identify the source of the fan on which it is used and to distinguish that product from others on the market. The design not only suggests something about the performance of the fan but is also suggestive of the name Vornado. Vornado invested time, effort, and money to develop the spiral grill. Prior to the development of the DT-7, Vornado fans were the only fan on the market to use such a grill; and the spiral

configuration came to be associated with the name Vornado by a significant number of consumers and by persons within the fan industry.

At the same time, the court is aware and has considered the factors that weigh against Vornado in this determination, such as the fact that Vornado has made numerous claims about the spiral grill that are inconsistent with its position in this case. It is clear that in the '324 patent Vornado claimed that the spiral configuration of the grill was functional. Vornado also at least suggests as much in its advertising. And although the evidence could not be said to have shown general acquiescence by others in Vornado's claims in the '324 patent, the patent apparently had at least some deterrent effect on three fan manufacturers. (There was no evidence, however, showing that Vornado's claims concerning the spiral configuration of the grill played any part in that deterrent effect.) In addition to these facts, the court has considered the circumstances surrounding Duracraft's adoption of a spiral grill and the fact that Duracraft could have in good faith believed that it had a right to copy the spiral grill because of limitations on the '324 patent. Because of those circumstances, among others, the court found that any relief granted should take into account the detrimental reliance of Duracraft upon representations made by Vornado and should also take into account the unexcusable delay by Vornado in bringing this suit. Although these factors are significant and weigh against the granting of an injunction, the court does not believe that they are sufficient reasons to allow Duracraft to continue using the spiral grill in the future.

There is no question that Duracraft adopted its spiral grill with knowledge that it was very similar in appearance to the Vornado spiral grill. Because of the circumstances and the distinctive nature of the spiral grill, Duracraft's use of a spiral grill in the DT-7 is likely to cause confusion as to whether there is some association, connection, or affiliation between Duracraft and Vornado or as to whether the DT-7 has been approved or sponsored by Vornado. The court is not persuaded that labeling of the products is sufficient to overcome this confusion. The court concludes that the appropriate remedy under the circumstances is an injunction prohibiting Duracraft from using the spiral grill in the DT-7. The court finds that such an order will further the objectives of the Lanham Act and § 1125(a) -- to secure to the owner of the mark the good will of his business and to protect the ability of consumers to distinguish among competing producers. Moreover, the order will not have an adverse effect on competition; it will not deprive the public of a beneficial technology; and it will not interfere with the incentives created by the patent scheme. Finally, the court finds based on the evidence that such an injunction will not result in undue harm to Duracraft. Although requiring Duracraft to use a different grill on the DT-7 will undoubtedly result in some added expense, the evidence indicated that the impact of such a change on Duracraft would not be unduly harsh and the court finds that such an order is justified in light of the confusion that is likely to result from Duracraft's use of a spiral grill. Duracraft is entitled under the circumstances to be allowed a reasonable time within which to make a change in the grill design of the DT-7 and to dispose of its inventory of fans with such a

grill. The evidence indicated that ninety days is a reasonable time in which to make such a change. Joint Exh. 2 at 2-41 through 2-44.

Count Three - Common Law Unfair Competition.

Count Three of the complaint alleges a claim under the common law of unfair competition. Duracraft contends that any claim under common law is preempted by federal law. Inasmuch as Vornado has not argued that its common law claim differs in any respect from the claim under § 1125(a), the court need not address the preemption issue because the relief to which Vornado is entitled under common law, if any, would be identical to that which it is entitled under § 1125(a).

Conclusion.

Pursuant to 15 U.S.C. §§ 1125 and 1116, Vornado is entitled to injunctive relief to prevent a future violation of § 1125(a) by Duracraft.

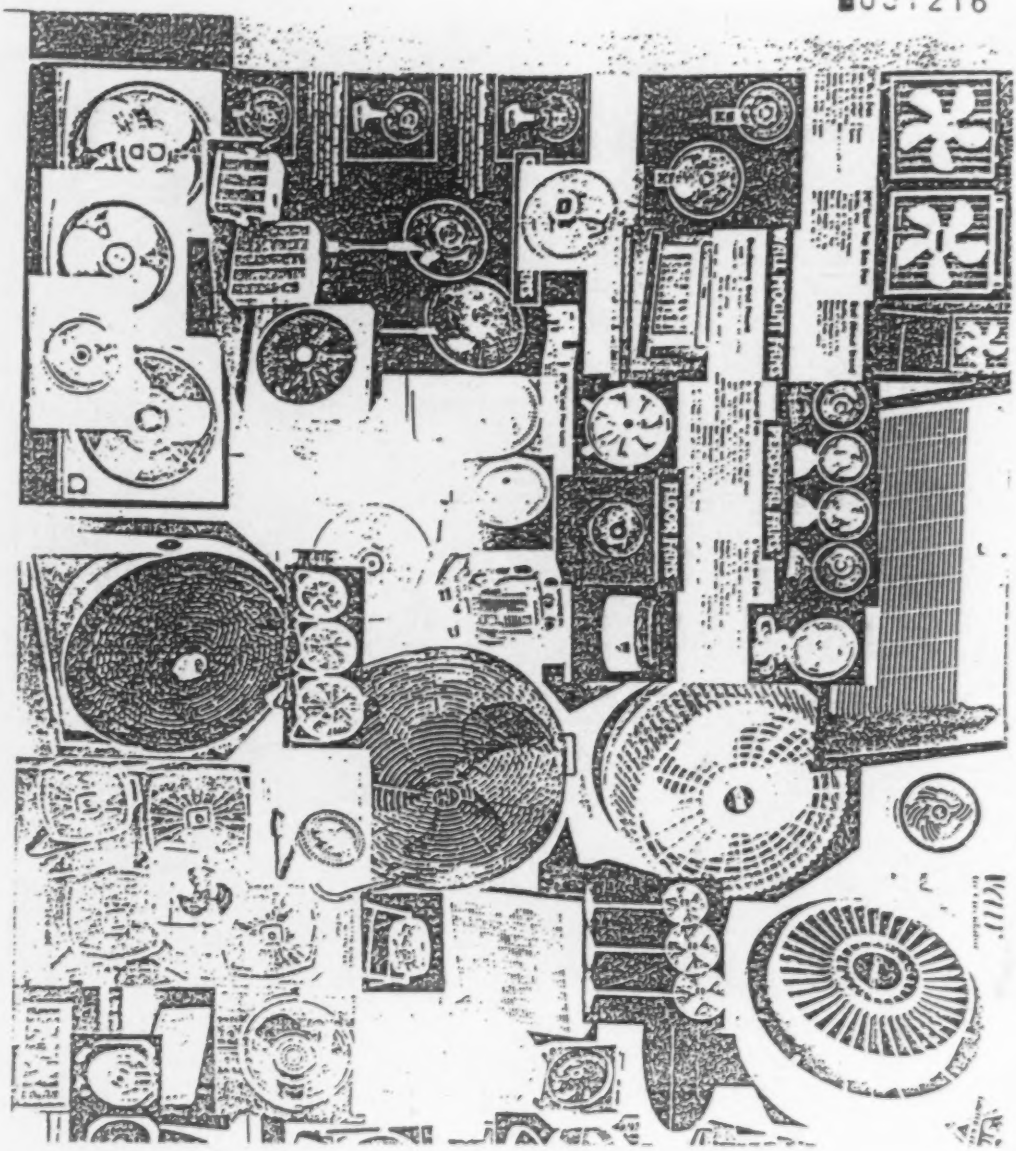
IT IS THEREFORE BY THE COURT ORDERED THAT beginning ninety (90) days from the date this order is entered, the defendant Duracraft Corporation shall be enjoined from selling or distributing in any manner in the United States any DT-7 fan containing a spiral grill design of a type that has been determined in this action to violate plaintiff's right to protection under the Lanham Act. Each party shall bear its own costs.

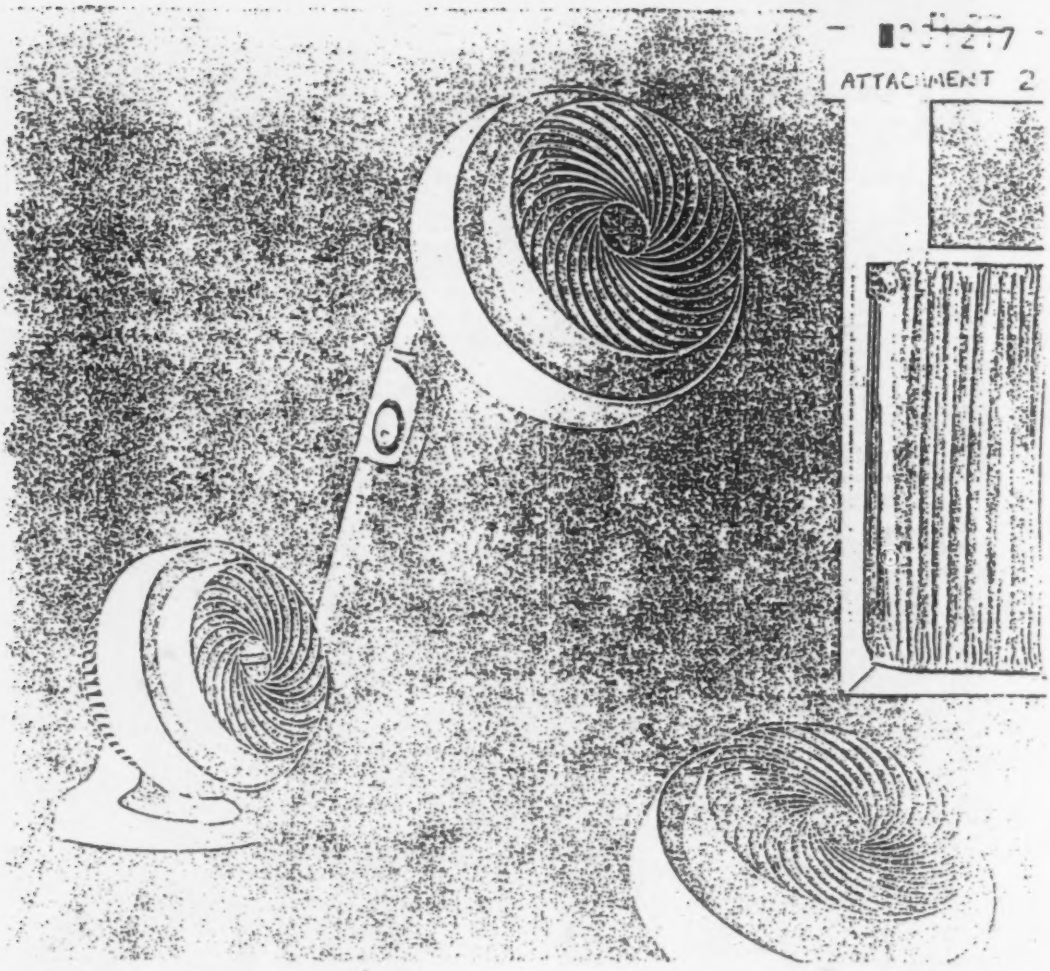
IT IS SO ORDERED. This 4th day of March, 1994, at Wichita, Kansas.

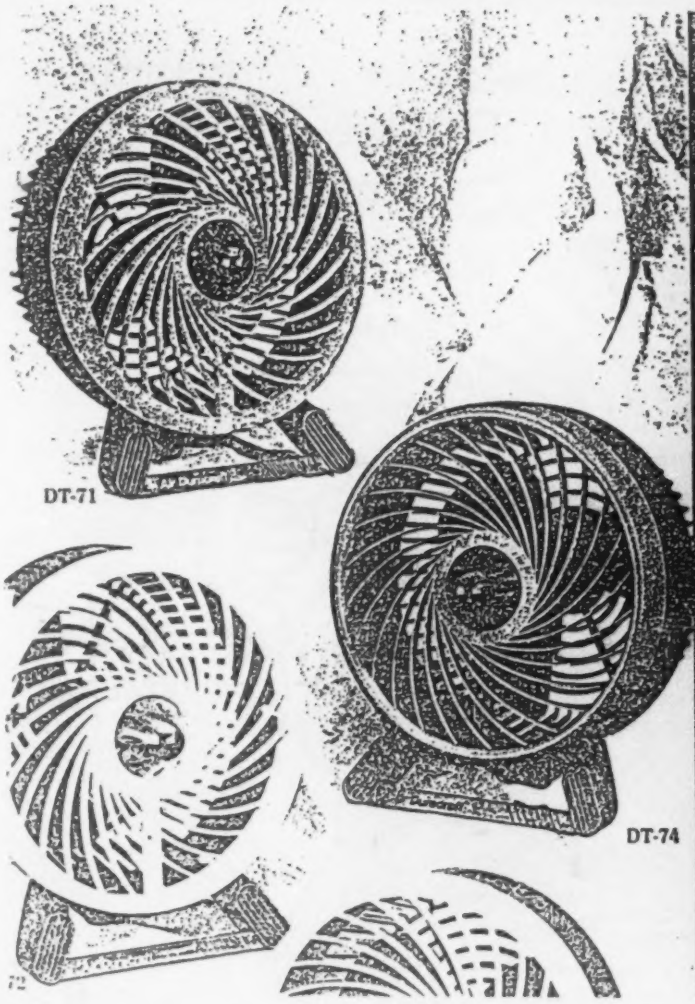
Wesley E. Brown, U.S. District Senior Judge

ATTACHMENT 1

001216




ATTACHMENT 2



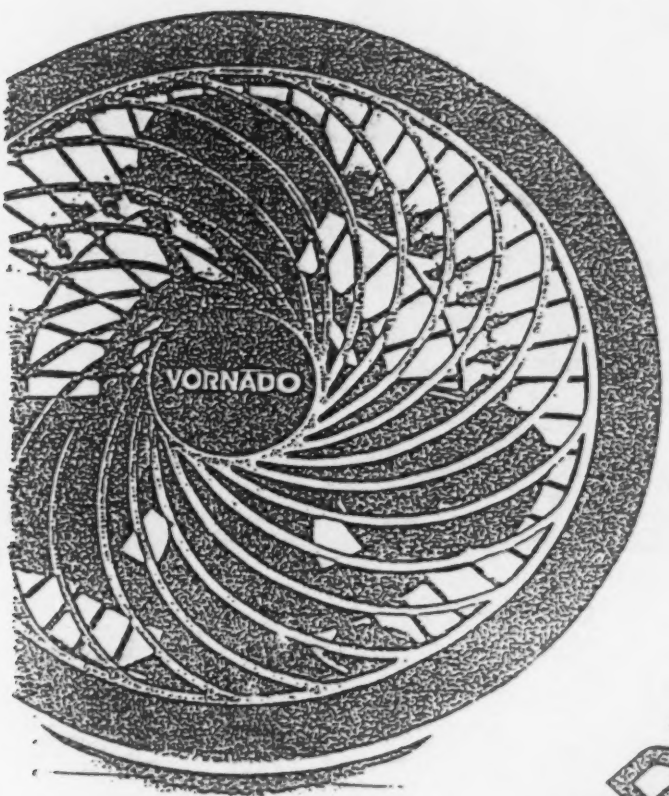
001218
ATTACHMENT 3

Our new turbos are ready to take off!

It may look like a jet engine. But the Air Duracraft™ is actually extremely quiet. This colorful, compact model blows more air than other fans of its kind. Decorator neutral tones fit beautifully into any room. Kids will love the bright greens. Perfect for the office, the kids'

ATTACHMENT 4

[redacted]001219



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COMPACT
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PERFORMANCE

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ATTACHMENT 5

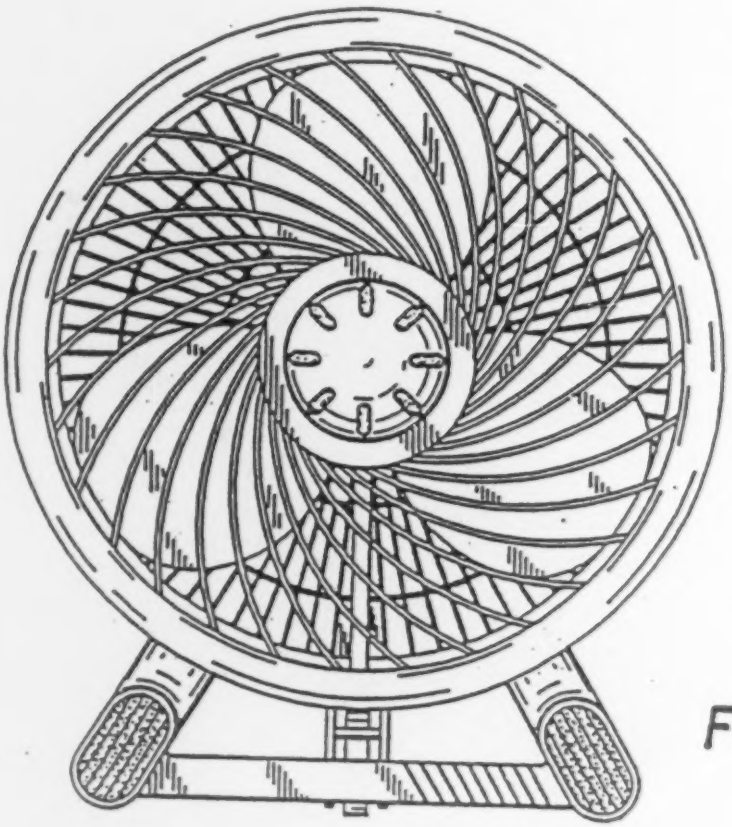

FIG. 3